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STRUCTURE FILE UPDATES: 5 FEB 2007 HIGHEST RN 919402-72-5
DICTIONARY FILE UPDATES: 5 FEB 2007 HIGHEST RN 919402-72-5

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=> FILE HCAPLU

FILE 'HCAPLUS' ENTERED AT 16:07:13 ON 06 FEB 2007
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FILE COVERS 1907 - 6 Feb 2007 VOL 146 ISS 7
FILE LAST UPDATED: 5 Feb 2007 (20070205/ED)

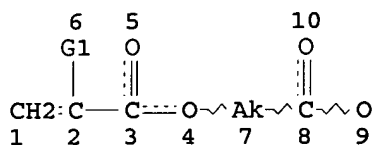
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This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> D QUE

L52	1 SEA FILE=REGISTRY ABB=ON	79-10-7	acrylic acid
L53	1 SEA FILE=REGISTRY ABB=ON	126-58-9	'OL's
L55	1 SEA FILE=REGISTRY ABB=ON	10411-26-4	
L56	1 SEA FILE=REGISTRY ABB=ON	"METHACRYLIC ACID"/CN	
L58	SCR 2043		
L60	STR		

*starting
material*



5,226 polymers
per structure claim 12

VAR G1=H/CH3

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

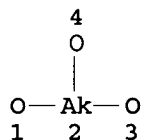
RSPEC I

NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L62 5226 SEA FILE=REGISTRY SSS FUL L60 AND L58

L65 STR



Subset search of above
polymers with polyol of
claim 16

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE

L67 1321 SEA FILE=REGISTRY SUB=L62 SSS FUL L65

L68 851 SEA FILE=HCAPLUS ABB=ON L67

L72 9 SEA FILE=HCAPLUS ABB=ON L68 AND RADICA?(5A) REACT?

L73 9 SEA FILE=HCAPLUS ABB=ON L68 AND ELECTROLYTE?

L74 18 SEA FILE=HCAPLUS ABB=ON L72 OR L73

L75 4094 SEA FILE=HCAPLUS ABB=ON L52/DP

L76 2633 SEA FILE=HCAPLUS ABB=ON L56/DP

L77 127 SEA FILE=HCAPLUS ABB=ON L53/DP

L78 2 SEA FILE=HCAPLUS ABB=ON L55/DP

L80 1 SEA FILE=REGISTRY ABB=ON 56-81-5

L82 1 SEA FILE=REGISTRY ABB=ON 149-32-6

L83 1703 SEA FILE=HCAPLUS ABB=ON L80/DP

L84 31 SEA FILE=HCAPLUS ABB=ON L82/DP

L86 72 SEA FILE=HCAPLUS ABB=ON (L75 OR L76) AND (L77 OR L78 OR L83 OR L84)

L87 2 SEA FILE=HCAPLUS ABB=ON L86 AND RADICA?(5A) REACT?

L88 5 SEA FILE=HCAPLUS ABB=ON L86 AND ELECTROLYTE?

L89 6 SEA FILE=HCAPLUS ABB=ON L87 OR L88

L91 24 SEA FILE=HCAPLUS ABB=ON L89 OR L74

=> D L91 BIB ABS IND HITSTR 1-24

L91 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:635624 HCAPLUS

DN 145:106833

TI Polymer **electrolyte** composition for rechargeable lithium battery

IN Choi, Bo-Geum; Jung, Cheol-Soo; Song, Eui-Hwan

PA S. Korea

SO U.S. Pat. Appl. Publ., 8 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2006141363	A1	20060629	US 2005-290130	20051129
PRAI	KR 2004-98558	A	20041129		

AB A polymer **electrolyte** composition for a rechargeable lithium battery includes an acrylate-based polymer, a lactone-based compound having an alkyl substituent, a nonaq. organic solvent, and a lithium salt. The **electrolyte** for a rechargeable lithium battery of the present invention exhibits excellent high temperature storage characteristics,

excellent high temperature cycle-life characteristics, and improved safety without deteriorating cell performance.

INCL 429307000; 429317000; 429231950

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38

ST polymer **electrolyte** compn rechargeable lithium battery; safety
polymer **electrolyte** compn rechargeable lithium battery

IT Peroxides, uses

RL: MOA (Modifier or additive use); USES (Uses)
(alkyl, C3-30; polymer **electrolyte** composition for rechargeable lithium battery)

IT Peroxides, uses

RL: MOA (Modifier or additive use); USES (Uses)
(dialkoxy, C3-30; polymer **electrolyte** composition for rechargeable lithium battery)

IT Secondary batteries

(lithium; polymer **electrolyte** composition for rechargeable lithium battery)

IT Peroxides, uses

RL: MOA (Modifier or additive use); USES (Uses)
(organic acid; polymer **electrolyte** composition for rechargeable lithium battery)

IT Acrylic polymers, uses

RL: DEV (Device component use); USES (Uses)
(polyester-; polymer **electrolyte** composition for rechargeable lithium battery)

IT Battery **electrolytes**

(polymer **electrolyte** composition for rechargeable lithium battery)

IT Acrylic polymers, uses

Lactones

RL: DEV (Device component use); USES (Uses)
(polymer **electrolyte** composition for rechargeable lithium battery)

IT Lithium alloy, base

RL: TEM (Technical or engineered material use); USES (Uses)
(polymer **electrolyte** composition for rechargeable lithium battery)

IT 104-61-0, γ -Nonalactone 105-21-5, γ -Heptanolactone
108-29-2, γ -Valerolactone 126-58-9D, Dipentaerythritol, reaction
product of ϵ -caprolactone 502-44-3D, ϵ -Caprolactone,
reaction product of dipentaerythritol 695-06-7, γ -Caprolactone
698-76-0, δ -Octanolactone 705-86-2, δ -Decanolactone

706-14-9, γ -Decanolactone 713-95-1, δ -Dodecanolactone
 823-22-3, δ -Caprolactone 3068-88-0, β -Butyrolactone
 3301-94-8, δ -Nonalactone 7439-93-2, Lithium, uses 7439-93-2D,
 Lithium, salt 21324-40-3, Lithium hexafluorophosphate
 RL: DEV (Device component use); USES (Uses)
 (polymer electrolyte composition for rechargeable lithium battery)

IT 850808-82-1P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP
 (Preparation); USES (Uses)

(polymer electrolyte composition for rechargeable lithium battery)

IT 94-36-0, Benzoyl peroxide, uses 105-64-6, Diisopropyl peroxy dicarbonate
 105-74-8, Dilauroyl peroxide 1561-49-5, Dicyclohexyl peroxydicarbonate
 1712-87-4, m-Toluoyl peroxide 3006-82-4, tert-Butyl peroxy-2-ethyl
 hexanoate 14666-78-5, Diethyl peroxy dicarbonate 15520-11-3,
 Bis-(4-tert-butylcyclohexyl)peroxy dicarbonate 26748-41-4,
 tert-Butylperoxy neodecanoate

RL: MOA (Modifier or additive use); USES (Uses)

(polymer electrolyte composition for rechargeable lithium battery)

IT 850808-82-1P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP
 (Preparation); USES (Uses)

(polymer electrolyte composition for rechargeable lithium battery)

RN 850808-82-1 HCAPLUS

CN Hexanoic acid, 6-[(1-oxo-2-propenyl)oxy]-, diester with
 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol]
 tetrapentanoate, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 850808-81-0

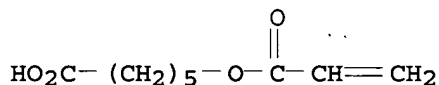
CMF C48 H78 O17

CCI IDS

CM 2

CRN 93365-33-4

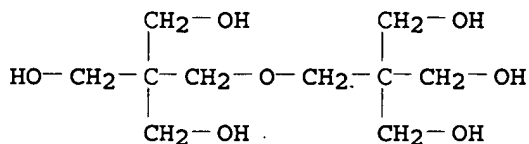
CMF C9 H14 O4



CM 3

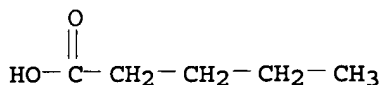
CRN 126-58-9

CMF C10 H22 O7



CM 4

CRN 109-52-4
CMF C5 H10 O2



L91 ANSWER 2 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:119244 HCAPLUS

DN 144:394516

TI Design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer

AU Tokuda, Hiroyuki; Tabata, Sei-ichiro; Seki, Shiro; Watanabe, Masayoshi
CS Department of Chemistry and Biotechnology, Yokohama National University,
79-5 Tokiwadai, Hodogaya-ku, Yokohama, 240-8501, Japan

SO Kobunshi Ronbunshu (2006), 63(1), 1-10
CODEN: KBRBA3; ISSN: 0386-2186

PB Kobunshi Gakkai

DT Journal

LA Japanese

AB To achieve high lithium-ionic conductivity in polyethers together with fast charge transfer reaction at the polymer **electrolyte**/electrode interface, novel polymer **electrolytes** based on hyper-branched polyether matrixes were prepared. The polymer **electrolytes** exhibited a high ionic conductivity of the order of 10^{-4} S/cm at room temperature due

to synchronization of the ionic transport with the fast mol. motion of the short and flexible ether side chains. By introducing trivalent boric acid esters in the polyethers and by alloying the polyethers with lithium salts of perfluorinated polyimides, polymer **electrolytes** having both high lithium-ionic transference number and high conductivity were obtained.

The

introduction of the free ether side chains into polyether matrixes also contributed to decreases in the interfacial charge-transfer resistance at the metallic lithium anode and at the LiCoO₂ cathode. A lithium salt of a weakly coordinating anion having low TG, incorporated in the hyper-branched polyether matrixes, afforded both high ionic conductivity and

low

charge-transfer resistance. Based on these results, lithium ionic liqs. were designed and incorporated into the polyethers. The ionic conductivities of the polymer **electrolytes** were higher than those of the ionic liqs. themselves. The combination of lithium ionic liqs. and hyper-branched polyether matrixes would be a novel strategy to realize low resistance in polymer **electrolytes** and at the solid-solid interface between polymer **electrolytes** and electrodes.

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 35, 36, 38, 76

ST polymer **electrolyte** lithium ionic cond interfacial charge transfer; hyper branched polyoxyalkylene acrylic ether network lithium complex cond; lithium macromol ionic liq borate ester cond polymer **electrolyte**; secondary lithium battery polyoxyalkylene polymer **electrolyte**

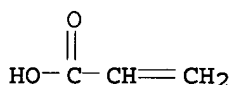
IT Polyoxyalkylenes, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(acrylic, graft, lithium ion complexes, and gels with lithium ionic

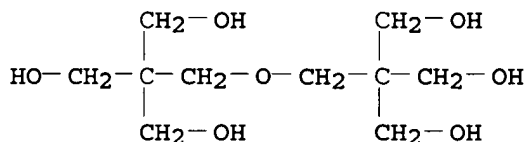
- liqs.; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Polymers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(comb, polyoxyalkylenes, esters with acrylic acid, and lithium ion complexes; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Ionic conductivity
Ionic liquids
Polymer **electrolytes**
Transference number
(design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Electric energy
(discharge capacity vs. voltage curves; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Polyoxyalkylenes, properties
RL: PRP (Properties)
(esters, esters with acrylic acid, lithium ion complexes; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Polyoxyalkylenes, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(ethers, dendritic; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Dendritic polymers
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(hyperbranched; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Electric resistance
(interfacial; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Secondary batteries
(lithium; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Glass transition temperature
(of polymer **electrolytes** using hyperbranched polyoxyalkylenes; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Polyimides, properties
RL: PRP (Properties)
(perfluoro, lithium salts, polymer **electrolytes** with hyperbranched polyoxyalkylenes; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Polymerization
(photochem., radical; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Polysulfones, properties
RL: PRP (Properties)
(polyether-polyimide-, fluorine-containing, lithium salts, polymer **electrolytes** containing; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Fluoropolymers, properties
RL: PRP (Properties)
(polyether-polyimide-polysulfone-, lithium salts, polymer **electrolytes** containing; design of polymer **electrolytes**

- to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Polyimides, properties
RL: PRP (Properties)
(polyether-polysulfone-, fluorine-containing, lithium salts, polymer **electrolytes** containing; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Fluoropolymers, properties
RL: PRP (Properties)
(polyimide-, perfluoro, lithium salts, polymer **electrolytes** with hyperbranched polyoxyalkylenes; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Polyethers, properties
RL: PRP (Properties)
(polyimide-polysulfone-, fluorine-containing, lithium salts, polymer **electrolytes** containing; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Borates
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyoxyalkylene and fluoro-containing esters; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT Acrylic polymers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyoxyalkylene-, graft, lithium ion complexes, and gels with lithium ionic liqs.; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT 90076-65-6, Lithium bis(trifluoromethanesulfonyl)imide
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(complexes with hyperbranched polyoxyalkylenes; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT 14283-07-9, Lithium tetrafluoroborate 330939-05-4
RL: PRP (Properties)
(complexes with polyoxyalkylenes; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT 7439-93-2, Lithium, uses 12190-79-3, Cobalt lithium oxide (CoLiO₂)
RL: DEV (Device component use); USES (Uses)
(design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT 2923-17-3D, Lithium trifluoroacetate, polymer **electrolytes** with acrylic borate-containing polymers
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT 79-10-7DP, Acrylic acid, esters with Me and methoxyethoxy ethers of ethylene oxide-propylene oxide copolymers, lithium ion complexes 126-58-9DP, ethers with Me and methoxyethoxy ethers of branched ethylene oxide-propylene oxide, ester with acrylic acid, lithium ion complexes 17341-24-1DP, complexes with branched polyoxyalkylenes, preparation 115401-75-7DP, lithium ion complexes 622374-52-1DP, lithium ion complexes 827581-11-3DP, lithium ion complexes 827582-09-2DP, lithium ion complexes 881900-57-8DP, lithium ion complexes 881914-34-7DP, lithium ion complexes
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(design of polymer **electrolytes** to realize high lithium-ionic

- conductivity with fast interfacial charge transfer)
- IT 76-05-1, Trifluoroacetic acid, reactions 112-35-6, Triethylene glycol monomethyl ether 771-61-9, 2,3,4,5,6-Pentafluorophenol 920-66-1, 1,1,1,3,3,3-Hexafluoroisopropanol 9004-74-4, Polyethylene glycol monomethyl ether 16949-15-8, Lithium borohydride 23783-42-8, Tetraethylene glycol monomethyl ether
- RL: RCT (Reactant); RACT (Reactant or reagent)
(design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT 732237-74-0 857881-00-6
- RL: PRP (Properties)
(lithium salts, polymer **electrolytes** containing; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT 783333-73-3P 783333-75-5P 783333-76-6P 783333-78-8P 783333-79-9P 783333-81-3P
- RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(plain and gels with hyperbranched polyacrylic polyoxyalkylenes; design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- IT 79-10-7DP, Acrylic acid, esters with Me and methoxyethoxy ethers of ethylene oxide-propylene oxide copolymers, lithium ion complexes 126-58-9DP, ethers with Me and methoxyethoxy ethers of branched ethylene oxide-propylene oxide, ester with acrylic acid, lithium ion complexes
- RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(design of polymer **electrolytes** to realize high lithium-ionic conductivity with fast interfacial charge transfer)
- RN 79-10-7 HCAPLUS
- CN 2-Propenoic acid (9CI) (CA INDEX NAME)



- RN 126-58-9 HCAPLUS
- CN 1,3-Propanediol, 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)]- (9CI) (CA INDEX NAME)



- L91 ANSWER 3 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- AN 2005:527431 HCAPLUS
- DN 143:61475
- TI Paint composition for in-mold coating of thermoplastic plastic substrates and its uses
- IN Kitamura, Akihiro
- PA Nippon Bee Chemical Co., Ltd., Japan
- SO U.S. Pat. Appl. Publ., 12 pp.
- CODEN: USXXCO
- DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005131130	A1	20050616	US 2004-990159	20041115
	JP 2005171048	A	20050630	JP 2003-411620	20031210
	CN 1637089	A	20050713	CN 2004-10100701	20041210
PRAI	JP 2003-411620	A	20031210		

AB The invention provides for a paint composition for in-mold coating of thermoplastic plastic substrates, the paint film resultant from which composition neither peels off nor becomes turbid even if the mold is opened in a state where its temperature is high, needless to say that the resultant paint film has excellent adhesion to nonpolar thermoplastic plastic substrates and adequate flowability. A paint composition according to the invention for in-mold coating of thermoplastic plastic substrates comprises: an acryl-modified unsatd. dicarboxylic acid (anhydride)-grafted polyolefin (A); at least one member (B) selected from the group consisting of reactive oligomers and reactive monomers; and a radical polymerization initiator (C); in a specific formulation ratio, with the paint composition being characterized in that: the acryl-modified unsatd. dicarboxylic acid (anhydride)-grafted polyolefin (A) is in the range of 92 to 112° in m.p. and in the range of 5 to 15% in ratio for which unsatd. dicarboxylic acid (anhydride)-derived structural units account in its structure. A typical polymer was manufactured by radical grafting Tafmer XR110T (1-butene-propylene copolymer) with maleic anhydride and 1-dodecene and reacting the intermediate with Placel FM-4 (OH-containing methacrylate polymer).

IC ICM C08K003-00

INCL 524539000

CC 42-7 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38

ST in mold coating plastic acrylic modified dicarboxylic grafted polyolefin; butene propylene copolymer maleic grafted methacrylated in mold coating; hydroxy methacrylate copolymer modified maleic grafted polyolefin manuf

IT Coating materials

(in-mold; paints based on acrylic-modified unsatd. diacid (anhydride)-grafted polyolefins for in-mold coating of thermoplastic plastics)

IT Polyolefin rubber

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(propene, Milastomer 7030B, molding; paints based on acrylic-modified unsatd. diacid (anhydride)-grafted polyolefins for in-mold coating of thermoplastic plastics)

IT 854265-69-3P 854265-70-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(control crosslinked paint; paints based on acrylic-modified unsatd. diacid (anhydride)-grafted polyolefins for in-mold coating of thermoplastic plastics)

IT 854102-77-5P, 1-Dodecene-ethylene-maleic anhydride-propylene graft copolymer 854102-79-7P, 1-Butene-1-dodecene-ethylene-maleic anhydride-propylene graft copolymer

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(control intermediate; paints based on acrylic-modified unsatd. diacid (anhydride)-grafted polyolefins for in-mold coating of thermoplastic plastics)

IT 854102-78-6P

RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical,

engineering or chemical process); PREP (Preparation); PROC (Process)
(control uncrosslinked paint; paints based on acrylic-modified unsatd.
diacid (anhydride)-grafted polyolefins for in-mold coating of
thermoplastic plastics)

IT 854102-80-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(control uncrosslinked paint; paints based on acrylic-modified unsatd.
diacid (anhydride)-grafted polyolefins for in-mold coating of
thermoplastic plastics)

IT 854265-66-0P 854265-67-1P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(crosslinked paint; paints based on acrylic-modified unsatd. diacid
(anhydride)-grafted polyolefins for in-mold coating of thermoplastic
plastics)

IT 853911-76-9P, 1-Butene-1-dodecene-maleic anhydride-propylene graft
copolymer

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; paints based on acrylic-modified unsatd. diacid
(anhydride)-grafted polyolefins for in-mold coating of thermoplastic
plastics)

IT 9003-07-0, Polypropylene

RL: PEP (Physical, engineering or chemical process); PYP (Physical
process); PROC (Process)
(rubber, molding; paints based on acrylic-modified unsatd. diacid
(anhydride)-grafted polyolefins for in-mold coating of thermoplastic
plastics)

IT 853911-78-1P 854102-76-4P

RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical,
engineering or chemical process); PREP (Preparation); PROC (Process)
(uncrosslinked paint; paints based on acrylic-modified unsatd. diacid
(anhydride)-grafted polyolefins for in-mold coating of thermoplastic
plastics)

IT 854265-69-3P 854265-70-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(control crosslinked paint; paints based on acrylic-modified unsatd.
diacid (anhydride)-grafted polyolefins for in-mold coating of
thermoplastic plastics)

RN 854265-69-3 HCAPLUS

CN Hexanoic acid, 6-[(1-oxo-2-propenyl)oxy]-, diester with
2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol]
tetra-2-propenoate, polymer with 1-dodecene graft polymer with ethene,
2,5-furandione and 1-propene ester with α -[2-[(2-methyl-1-oxo-2-
propenyl)oxy]ethyl]- ω -hydroxypoly[oxy(1-oxo-1,6-hexanediyl)],
Ebecryl 8402 and 1,9-nonanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 183449-62-9

CMF Unspecified

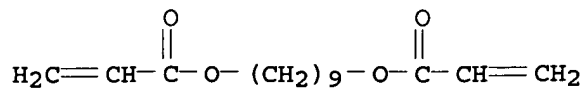
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107481-28-7

CMF C15 H24 O4



CM 3

CRN 854102-78-6

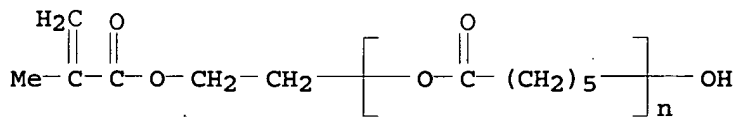
CMF (C12 H24 . C4 H2 O3 . C3 H6 . C2 H4)x . x (C6 H10 O2)n C6 H10 O3

CM 4

CRN 81984-60-3

CMF (C6 H10 O2)n C6 H10 O3

CCI PMS



CM 5

CRN 854102-77-5

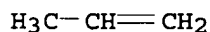
CMF (C12 H24 . C4 H2 O3 . C3 H6 . C2 H4)x

CCI PMS

CM 6

CRN 115-07-1

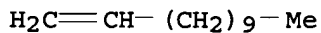
CMF C3 H6



CM 7

CRN 112-41-4

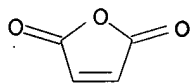
CMF C12 H24



CM 8

CRN 108-31-6

CMF C4 H2 O3



CM 9

CRN 74-85-1

CMF C2 H4



CM 10

CRN 93365-34-5

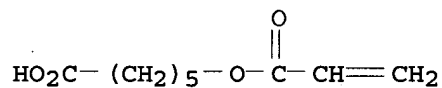
CMF C40 H54 O17

CCI IDS

CM 11

CRN 93365-33-4

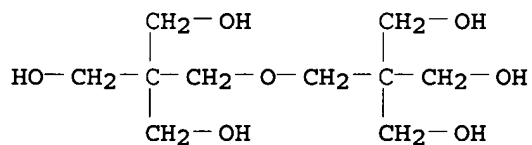
CMF C9 H14 O4



CM 12

CRN 126-58-9

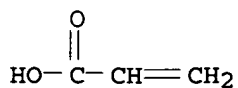
CMF C10 H22 O7



CM 13

CRN 79-10-7

CMF C3 H4 O2



RN 854265-70-6 HCAPLUS

CN Hexanoic acid, 6-[(1-oxo-2-propenyl)oxy]-, diester with
 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol]
 tetra-2-propenoate, polymer with 1-butene graft polymer with 1-dodecene,
 ethene, 2,5-furandione and 1-propene ester with α -[2-[(2-methyl-1-
 oxo-2-propenyl)oxy]ethyl]- ω -hydroxypoly[oxy(1-oxo-1,6-hexanediyl)],
 Ebecryl 8402 and 1,9-nonanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 183449-62-9

CMF Unspecified

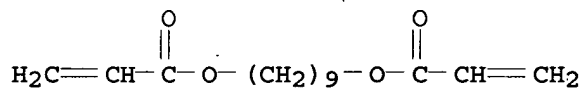
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107481-28-7

CMF C15 H24 O4



CM 3

CRN 854102-80-0

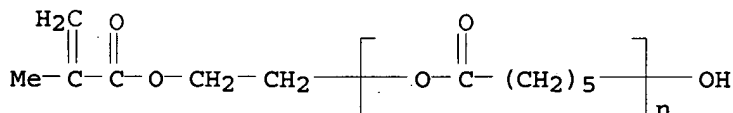
CMF (C12 H24 . C4 H8 . C4 H2 O3 . C3 H6 . C2 H4)x . x (C6 H10 O2)n . C6 H10 O3

CM 4

CRN 81984-60-3

CMF (C6 H10 O2)n C6 H10 O3

CCI PMS



CM 5

CRN 854102-79-7

CMF (C12 H24 . C4 H8 . C4 H2 O3 . C3 H6 . C2 H4)x

CCI PMS

CM 6

CRN 115-07-1

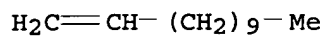
CMF C3 H6



CM 7

CRN 112-41-4

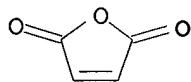
CMF C12 H24



CM 8

CRN 108-31-6

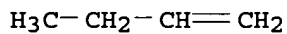
CMF C4 H2 O3



CM 9

CRN 106-98-9

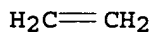
CMF C4 H8



CM 10

CRN 74-85-1

CMF C2 H4



CM 11

CRN 93365-34-5

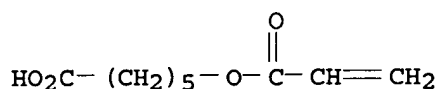
CMF C40 H54 O17

CCI IDS

CM 12

CRN 93365-33-4

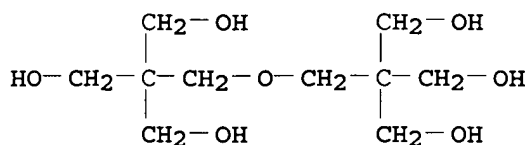
CMF C9 H14 O4



CM 13

CRN 126-58-9

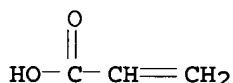
CMF C10 H22 O7



CM 14

CRN 79-10-7

CMF C3 H4 O2



IT 854265-66-0P 854265-67-1P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(crosslinked paint; paints based on acrylic-modified unsatd. diacid (anhydride)-grafted polyolefins for in-mold coating of thermoplastic plastics)

RN 854265-66-0 HCAPLUS

CN Hexanoic acid, 6-[(1-oxo-2-propenyl)oxy]-, diester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol] tetra-2-propenoate, polymer with 1-butene graft polymer with 1-dodecene, 2,5-furandione and 1-propene ester with α -[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]- ω -hydroxypoly[oxy(1-oxo-1,6-hexanediyl)], Ebecryl 8402 and 1,9-nonanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 183449-62-9

CMF Unspecified

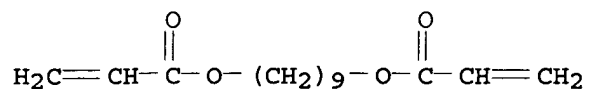
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107481-28-7

CMF C15 H24 O4



CM 3

CRN 854102-76-4

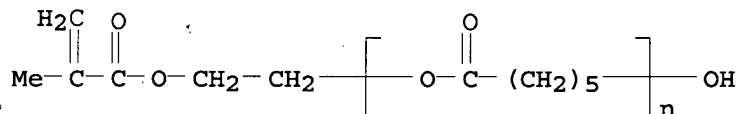
CMF (C12 H24 . C4 H8 . C4 H2 O3 . C3 H6)x . x (C6 H10 O2)n C6 H10 O3

CM 4

CRN 81984-60-3

CMF (C6 H10 O2)n C6 H10 O3

CCI PMS



CM 5

CRN 853911-76-9

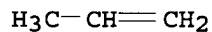
CMF (C12 H24 . C4 H8 . C4 H2 O3 . C3 H6)x

CCI PMS

CM 6

CRN 115-07-1

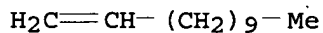
CMF C3 H6



CM 7

CRN 112-41-4

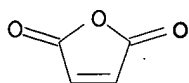
CMF C12 H24



CM 8

CRN 108-31-6

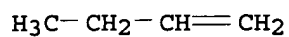
CMF C4 H2 O3



CM 9

CRN 106-98-9

CMF C4 H8



CM 10

CRN 93365-34-5

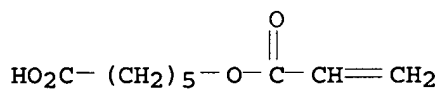
CMF C40 H54 O17

CCI IDS

CM 11

CRN 93365-33-4

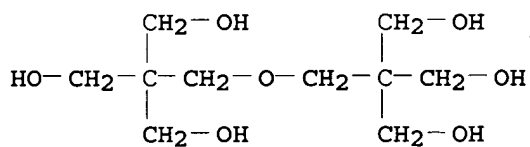
CMF C9 H14 O4



CM 12

CRN 126-58-9

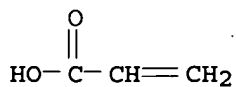
CMF C10 H22 O7



CM 13

CRN 79-10-7

CMF C3 H4 O2



RN 854265-67-1 HCAPLUS

CN Hexanoic acid, 6-[(1-oxo-2-propenyl)oxy]-, diester with
2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol]
tetra-2-propenoate, polymer with 1-butene graft polymer with 1-dodecene,
2,5-furandione and 1-propene mono[4-[(1-oxo-2-propenyl)oxy]butyl] ester,
butyl 2-propenoate, Ebecryl 8402, methyl 2-methyl-2-propenoate and
1,9-nonanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 183449-62-9

CMF Unspecified

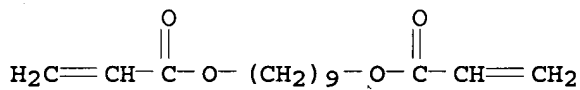
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107481-28-7

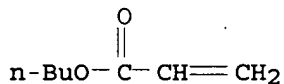
CMF C15 H24 O4



CM 3

CRN 141-32-2

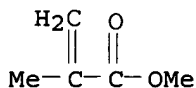
CMF C7 H12 O2



CM 4

CRN 80-62-6

CMF C5 H8 O2



CM 5

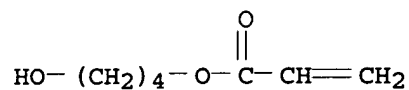
CRN 853911-77-0

CMF (C12 H24 . C4 H8 . C4 H2 O3 . C3 H6)x . C7 H12 O3

CM 6

CRN 2478-10-6

CMF C7 H12 O3



CM 7

CRN 853911-76-9

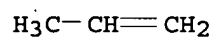
CMF (C12 H24 . C4 H8 . C4 H2 O3 . C3 H6)x

CCI PMS

CM 8

CRN 115-07-1

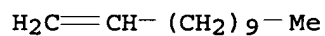
CMF C3 H6



CM 9

CRN 112-41-4

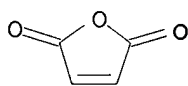
CMF C12 H24



CM 10

CRN 108-31-6

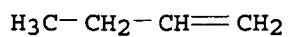
CMF C4 H2 O3



CM 11

CRN 106-98-9

CMF C4 H8



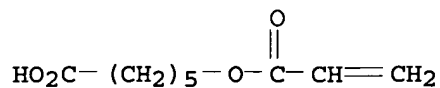
CM 12

CRN 93365-34-5

CMF C40 H54 O17
CCI IDS

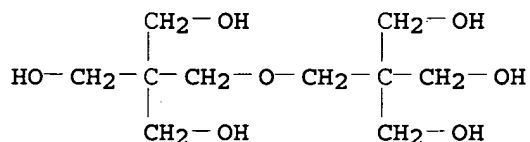
CM 13

CRN 93365-33-4
CMF C9 H14 O4



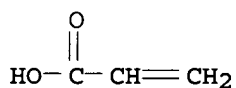
CM 14

CRN 126-58-9
CMF C10 H22 O7



CM 15

CRN 79-10-7
CMF C3 H4 O2



L91 ANSWER 4 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:370919 HCAPLUS
DN 142:433086
TI Rechargeable lithium polymer battery
IN Hwang, Duck-chul; Choi, Yun-suk; Cho, Chung-kun; Lee, Sang-mock
PA S. Korea
SO U.S. Pat. Appl. Publ., 13 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005089759	A1	20050428	US 2004-970824	20041021
	KR 2005038905	A	20050429	KR 2003-74218	20031023
	JP 2005129535	A	20050519	JP 2004-308718	20041022
	CN 1770540	A	20060510	CN 2004-10104729	20041025
PRAI	KR 2003-74218	A	20031023		
AB	Disclosed is a rechargeable lithium polymer battery comprising a neg.				

electrode including a neg. active material layer deposited on a substrate, a pos. electrode including a pos. active material; and a polymer electrolyte including a lithium salt, an organic solvent, and a polymer.

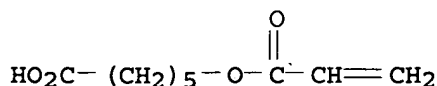
IC ICM H01M004-66
ICS H01M004-40; H01M004-58; H01M002-16; H01M010-40
INCL 429245000; 429231950; 429234000; 429246000; 429317000
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38
ST lithium polymer battery rechargeable
IT Battery electrodes
(current collector; rechargeable lithium polymer battery)
IT Secondary batteries
(lithium; rechargeable lithium polymer battery)
IT Fluoropolymers, uses
Polyesters, uses
Polyoxyalkylenes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(rechargeable lithium polymer battery)
IT 7429-90-5, Aluminum, uses
RL: DEV (Device component use); USES (Uses)
(current collector; rechargeable lithium polymer battery)
IT 9002-86-2, Polyvinyl chloride 9051-34-7, Polyethylene glycol dimethacrylate polymer 12190-79-3, Cobalt lithium oxide (CoLiO₂)
RL: DEV (Device component use); USES (Uses)
(rechargeable lithium polymer battery)
IT 96-49-1, Ethylene carbonate 616-38-6, Dimethyl carbonate 623-53-0, Ethyl methyl carbonate 21324-40-3, Lithium hexafluorophosphate 25322-68-3, Polyethylene oxide 850808-82-1
RL: TEM (Technical or engineered material use); USES (Uses)
(rechargeable lithium polymer battery)
IT 24937-79-9, PvdF 25038-59-9, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(substrate; rechargeable lithium polymer battery)
IT 850808-82-1
RL: TEM (Technical or engineered material use); USES (Uses)
(rechargeable lithium polymer battery)
RN 850808-82-1 HCAPLUS
CN Hexanoic acid, 6-[(1-oxo-2-propenyl)oxy]-, diester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol] tetrapentanoate, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 850808-81-0
CMF C48 H78 O17
CCI IDS

CM 2

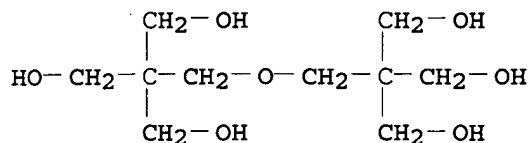
CRN 93365-33-4
CMF C9 H14 O4



CM 3

CRN 126-58-9

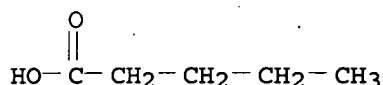
CMF C10 H22 O7



CM 4

CRN 109-52-4

CMF C5 H10 O2



L91 ANSWER 5 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:283974 HCAPLUS

DN 142:358042

TI Nonaqueous electrolyte battery with improved high-temperature cycle characteristics

IN Takahashi, Kentaro

PA Sanyo Electric Co., Ltd., Japan

SO U.S. Pat. Appl. Publ., 11 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005069766	A1	20050331	US 2004-948301	20040924
	JP 2005108515	A	20050421	JP 2003-337783	20030929
	CN 1604380	A	20050406	CN 2004-10077115	20040910
	KR 2005031436	A	20050406	KR 2004-77261	20040924
PRAI	JP 2003-337783	A	20030929		

AB The present invention provides a nonaq. electrolyte cell that excels in the high-temperature cycle characteristics and that is without the possibility of solution leakage. The nonaq. electrolyte cell includes a polymer electrolyte. This polymer electrolyte is a polymerization of a prepolymer included in a prepolymer electrolyte that includes a nonaq. solvent, an electrolyte salt, and the prepolymer. The prepolymer includes a polyester-based monomer. The polymer electrolyte further includes a vinylene carbonate derivative and cyclic acid anhydride.

IC ICM H01M010-40

ICS H01M004-58

INCL 429189000; 429317000; 429231800; 429309000

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38

ST nonaq electrolyte battery

IT Polyethers, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (acrylates; nonaq. electrolyte battery with improved high-temperature cycle characteristics)

IT Polyethers, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (methacrylate; nonaq. electrolyte battery with improved high-temperature cycle characteristics)

IT Secondary batteries
 (nonaq. electrolyte battery with improved high-temperature cycle characteristics)

IT Carbonaceous materials (technological products)
 RL: DEV (Device component use); USES (Uses)
 (nonaq. electrolyte battery with improved high-temperature cycle characteristics)

IT 927-07-1, tert-Butyl peroxy pivalate
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
 (nonaq. electrolyte battery with improved high-temperature cycle characteristics)

IT 96-49-1, Ethylene carbonate 105-58-8, Diethyl carbonate 12057-17-9, Lithium manganese oxide (LiMn2O4) 12190-79-3, Cobalt lithium oxide (CoLiO2) 21324-40-3, Lithium hexafluorophosphate
 RL: DEV (Device component use); USES (Uses)
 (nonaq. electrolyte battery with improved high-temperature cycle characteristics)

IT 849030-07-5P 849030-09-7P 849030-10-0P
 849030-12-2P 849030-13-3P 849030-14-4P
 849060-23-7P 849060-24-8P 849060-25-9P
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (nonaq. electrolyte battery with improved high-temperature cycle characteristics)

IT 849030-07-5P 849030-10-0P 849030-12-2P
 849030-13-3P 849030-14-4P 849060-23-7P
 849060-24-8P 849060-25-9P
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (nonaq. electrolyte battery with improved high-temperature cycle characteristics)

RN 849030-07-5 HCAPLUS

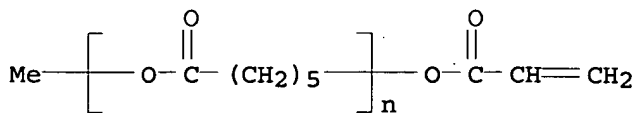
CN Hexanoic acid, 6-[[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-, 2-ethyl-2-[[[1-oxo-6-[[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]hexyl]oxy]methyl]-1,3-propanediyl ester, polymer with dihydro-2,5-furandione, 1,3-dioxol-2-one and α -methyl- ω -[(1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)

CM 1

CRN 849030-06-4

CMF (C6 H10 O2)n C4 H6 O2

CCI PMS

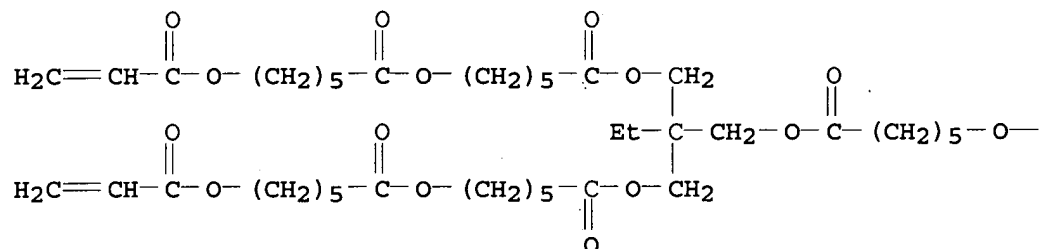


CM 2

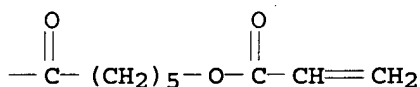
CRN 798561-50-9

CMF C51 H80 O18

PAGE 1-A



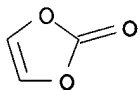
PAGE 1-B



CM 3

CRN 872-36-6

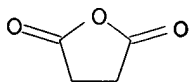
CMF C3 H2 O3



CM 4

CRN 108-30-5

CMF C4 H4 O3



RN 849030-10-0 HCAPLUS

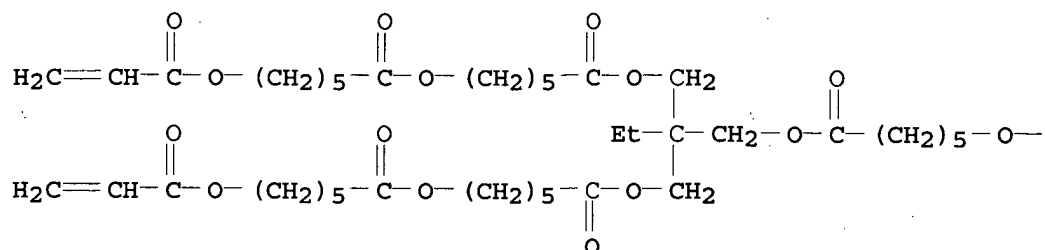
CN Hexanoic acid, 6-[[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-, 2-ethyl-2-[[[1-oxo-6-[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]hexyl]oxy]methyl]-1,3-propanediyl ester, polymer with dihydro-2,5-furandione, 1,3-dioxol-2-one and α,α' -1,2-ethanediylbis[ω -[(1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)]] (9CI) (CA INDEX NAME)

CM 1

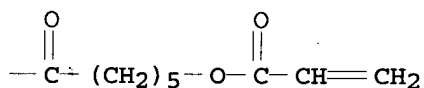
CRN 798561-50-9

CMF C51 H80 O18

PAGE 1-A



PAGE 1-B



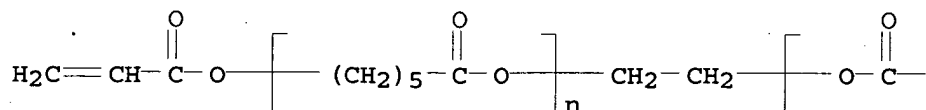
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CRN 118529-57-0

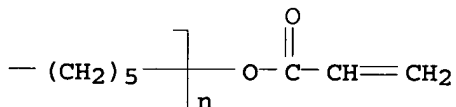
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CCI PMS

PAGE 1-A



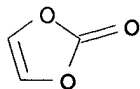
PAGE 1-B



CM 3

CRN 872-36-6

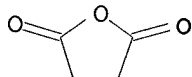
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CM 4

CRN 108-30-5

CMF C4 H4 O3



RN 849030-12-2 HCAPLUS

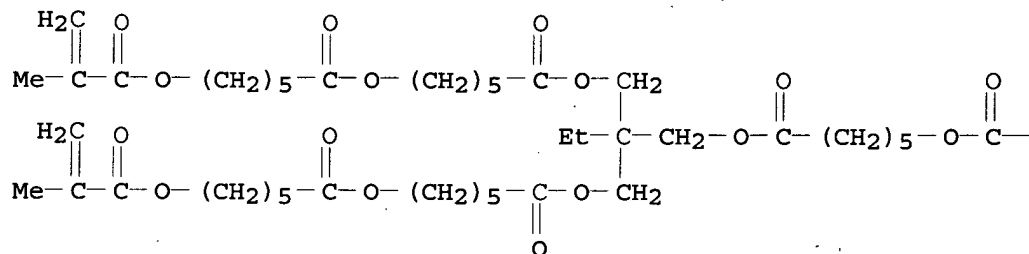
CN Hexanoic acid, 6-[[[6-[(2-methyl-1-oxo-2-propenyl)oxy]-1-oxohexyl]oxy]-, 2-ethyl-2-[[[6-[[[6-[(2-methyl-1-oxo-2-propenyl)oxy]-1-oxohexyl]oxy]-1-oxohexyl]oxy]methyl]-1,3-propanediyl ester, polymer with dihydro-2,5-furandione, 1,3-dioxol-2-one and α,α' -1,2-ethanediylbis[ω -[(1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)]] (9CI) (CA INDEX NAME)

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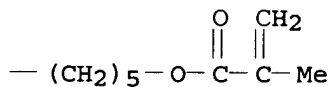
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CMF C54 H86 O18

PAGE 1-A



PAGE 1-B



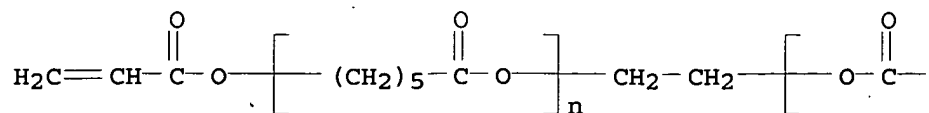
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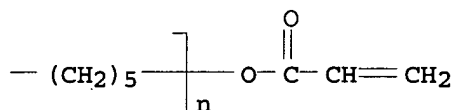
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CCI PMS

PAGE 1-A



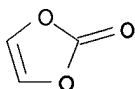
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CM 3

CRN 872-36-6

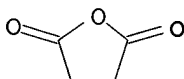
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CM 4

CRN 108-30-5

CMF C4 H4 O3



RN 849030-13-3 HCAPLUS

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 α -hydro- ω -[(2-methyl-1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-
 hexanediyl)] ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)
 (9CI) (CA INDEX NAME)

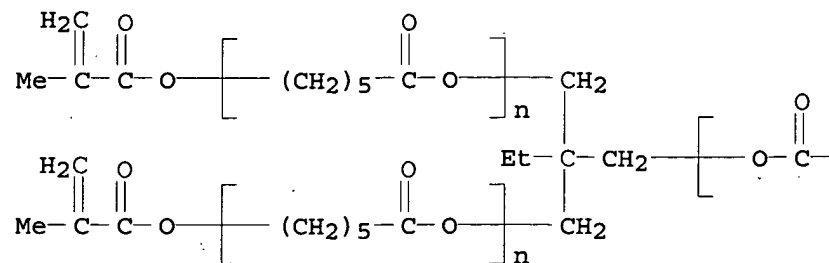
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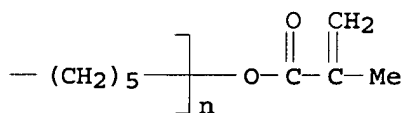
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CCI PMS

PAGE 1-A



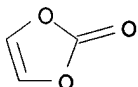
PAGE 1-B



CM 2

CRN 872-36-6

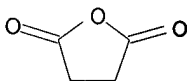
CMF C3 H2 O3



CM 3

CRN 108-30-5

CMF C4 H4 O3



RN 849030-14-4 HCAPLUS

CN 2,5-Furandione, dihydro-, polymer with 1,3-dioxol-2-one and
 α -hydro- ω -[(1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-
 hexanediyl)] ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1) (9CI)
 (CA INDEX NAME)

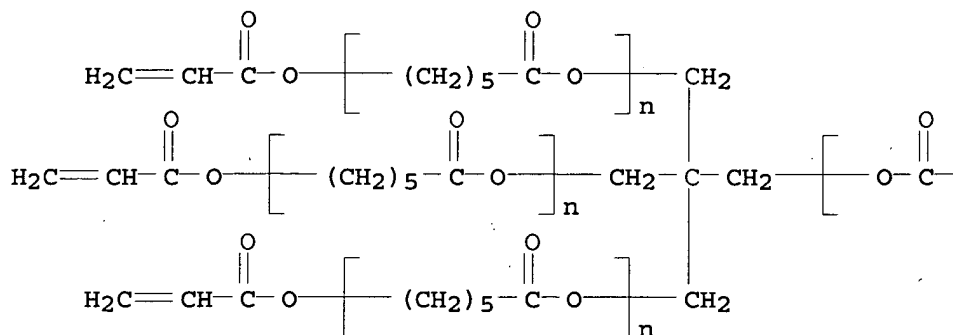
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CRN 99716-98-0

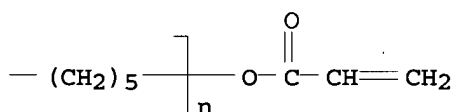
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CCI PMS

PAGE 1-A



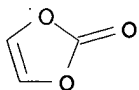
PAGE 1-B



CM 2

CRN 872-36-6

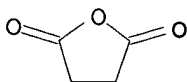
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CM 3

CRN 108-30-5

CMF C4 H4 O3



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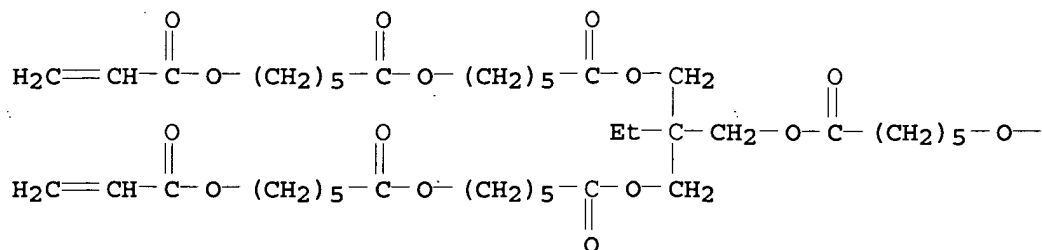
CN Hexanoic acid, 6-[[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-, 2-ethyl-2-[[[1-oxo-6-[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]hexyl]oxy]methyl]-1,3-propanediyl ester, polymer with dihydro-2,5-furandione, 1,3-dioxol-2-one and α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

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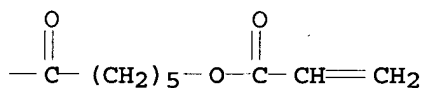
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CMF C51 H80 O18

PAGE 1-A



PAGE 1-B

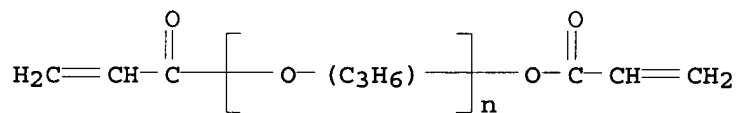


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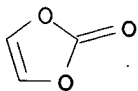
CCI IDS, PMS



CM 3

CRN 872-36-6

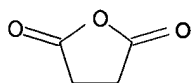
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CM 4

CRN 108-30-5

CMF C4 H4 O3



RN 849060-24-8 HCAPLUS

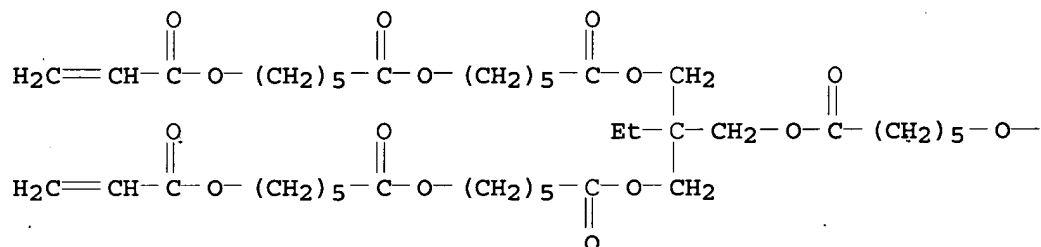
CN Hexanoic acid, 6-[[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-, 2-ethyl-2-[[[1-oxo-6-[[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]hexyl]oxy]methyl]-1,3-propanediyl ester, polymer with dihydro-2H-pyran-2,6(3H)-dione, 1,3-dioxol-2-one and α -(1-oxo-2-propenyl)- ω -[[1-oxo-2-propenyl]oxy]poly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

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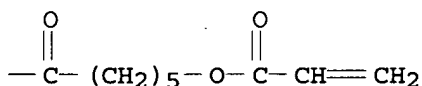
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PAGE 1-A



PAGE 1-B

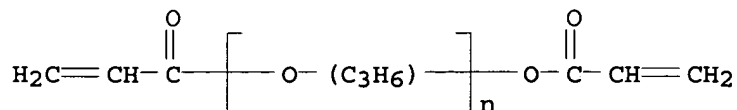


CM 2

CRN 52496-08-9

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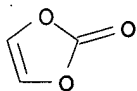
CCI IDS, PMS



CM 3

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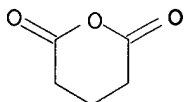
CMF C3 H2 O3



CM 4

CRN 108-55-4

CMF C5 H6 O3



RN 849060-25-9 HCAPLUS

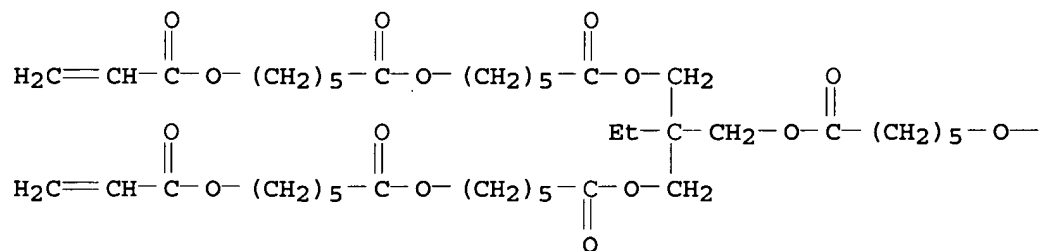
CN Hexanoic acid, 6-[[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-, 2-ethyl-2-[[[1-oxo-6-[[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]hexyl]oxy]methyl]-1,3-propanediyl ester, polymer with 1,3-dioxol-2-one, hydroxyacetic acid anhydride and α -(1-oxo-2-propenyl)- ω -[(1-oxo-2-propenyl)oxy]poly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

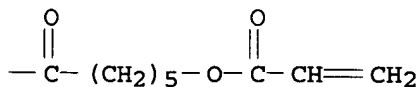
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CMF C51 H80 O18

PAGE 1-A



PAGE 1-B

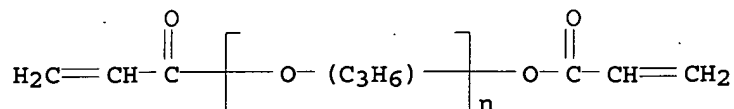


CM 2

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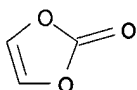
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CM 3

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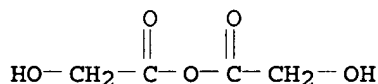
CMF C3 H2 O3



CM 4

CRN 626-25-5

CMF C4 H6 O5



L91 ANSWER 6 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:283973 HCAPLUS

DN 142:358041

TI Nonaqueous electrolyte battery

IN Yamasaki, Mikiya

PA Sanyo Electric Co., Ltd., Japan

SO U.S. Pat. Appl. Publ., 11 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

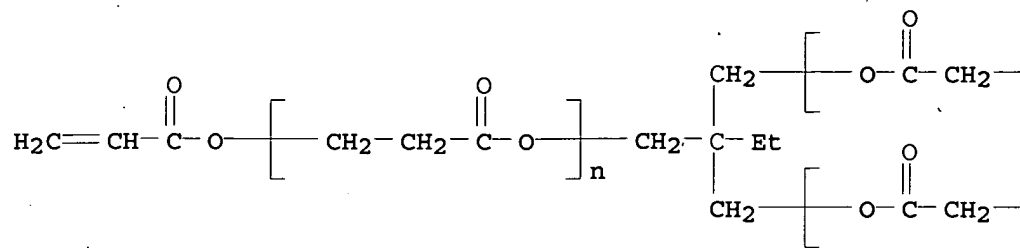
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	TW 249873	B	20060221	TW 2004-93121083	20040715
	CN 1604381	A	20050406	CN 2004-10077120	20040910
	KR 2005031435	A	20050406	KR 2004-77260	20040924
PRAI	JP 2003-337271	A	20030929		

AB The present invention provides a nonaq. electrolyte cell that utilizes lithium manganese oxide, which is cheap, for the pos. electrode active material and thus has improved high-temperature cycle characteristics. The nonaq. electrolyte cell has a pos. electrode including lithium manganese oxide as an active material, a neg. electrode, and a polymer electrolyte. The polymer electrolyte is a polymerization of a prepolymer included in a prepolymer electrolyte

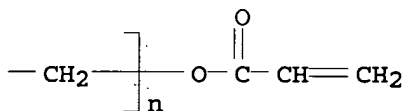
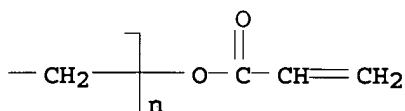
that includes a nonaq. solvent; an electrolyte salt, and the prepolymer. As the prepolymer, polyester acrylate and/or polyester methacrylate are used.

IC ICM H01M006-18
ICS H01M010-40
INCL 429189000; 429309000; 429317000; 429307000
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38
ST nonaq battery cathode lithium manganese oxide
IT Polyesters, processes
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(acrylate-terminated; nonaq. electrolyte battery)
IT Polyethers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(acrylates; nonaq. electrolyte battery)
IT Secondary batteries
(lithium; nonaq. electrolyte battery)
IT Polyesters, processes
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(methacrylate-terminated; nonaq. electrolyte battery)
IT Polyethers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(methacrylate; nonaq. electrolyte battery)
IT Battery cathodes
Battery electrolytes
Polymer electrolytes
(nonaq. electrolyte battery)
IT 872-36-6D, Vinylene carbonate, derivative
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(nonaq. electrolyte battery)
IT 12057-17-9, Lithium manganese oxide (LiMn2O4) 12190-79-3, Cobalt lithium oxide (CoLiO2) 39457-42-6, Lithium manganese oxide 848779-45-3
848779-47-5 848779-50-0 848779-51-1
848824-30-6 848824-31-7
RL: DEV (Device component use); USES (Uses)
(nonaq. electrolyte battery)
IT 848779-45-3 848779-47-5 848779-50-0
848779-51-1 848824-30-6 848824-31-7
RL: DEV (Device component use); USES (Uses)
(nonaq. electrolyte battery)
RN 848779-45-3 HCAPLUS
CN Poly[oxy(1-oxo-1,3-propanediyl)], α -hydro- ω -[(1-oxo-2-propenyl)oxy]-, ester with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), polymer with α -methyl- ω -[(1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,3-propanediyl)] (9CI) (CA INDEX NAME)
CM 1
CRN 848779-44-2
CMF (C3 H4 O2)n (C3 H4 O2)n (C3 H4 O2)n C15 H20 O6
CCI PMS

PAGE 1-A



PAGE 1-B

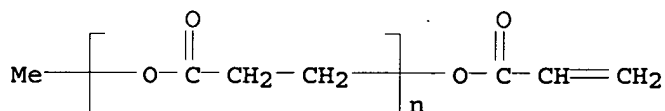


CM 2

CRN 848779-43-1

CMF (C3 H4 O2)_n C4 H6 O2

CCI PMS



RN 848779-47-5 HCAPLUS

CN Poly[oxy(1-oxo-1,3-propanediyl)], α-hydro-ω-[(1-oxo-2-propenyl)oxy]-, ester with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), polymer with α-methyl-ω-[(1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,3-propanediyl)] (9CI) (CA INDEX NAME)

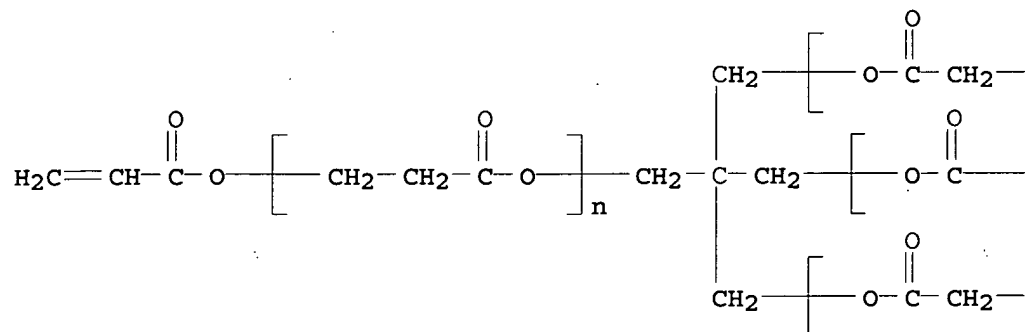
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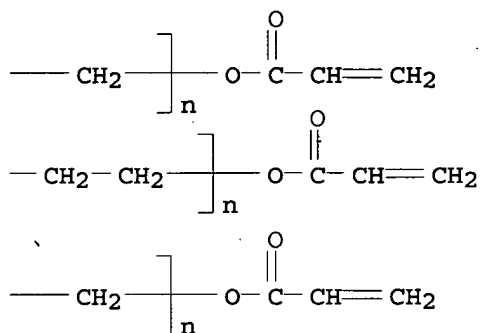
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CCI PMS

PAGE 1-A



PAGE 1-B

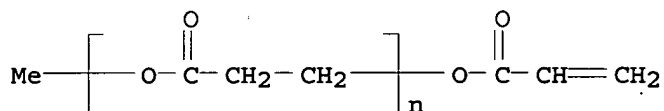


CM 2

CRN 848779-43-1

CMF (C3 H4 O2)_n C4 H6 O2

CCI PMS



RN 848779-50-0 HCAPLUS

CN Poly[oxy(1-oxo-1,3-propanediyl)], α-hydro-ω-[(2-methyl-1-oxo-2-propenyl)oxy]-, ester with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), polymer with α-methyl-ω-[(2-methyl-1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,3-propanediyl)] (9CI) (CA INDEX NAME)

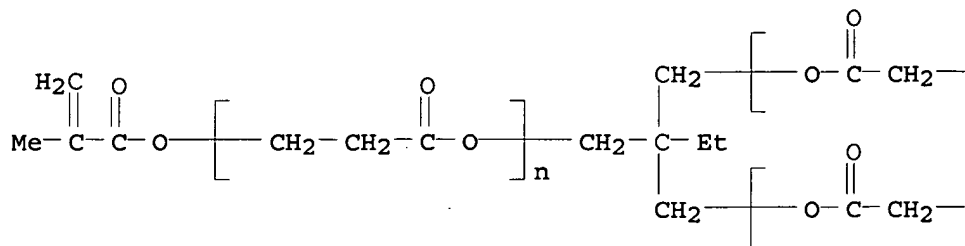
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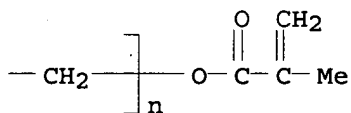
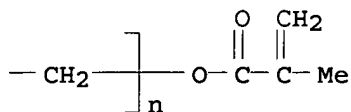
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CCI PMS

PAGE 1-A



PAGE 1-B

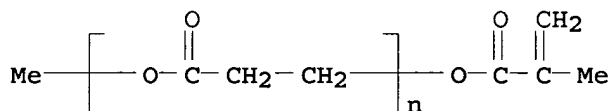


CM 2

CRN 848779-48-6

CMF (C3 H4 O2)_n C5 H8 O2

CCI PMS



RN 848779-51-1 HCAPLUS

CN Poly[oxy(1-oxo-1,3-propanediyl)], α-hydro-ω-[(1-oxo-2-propenyl)oxy]-, ester with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), polymer with α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME).

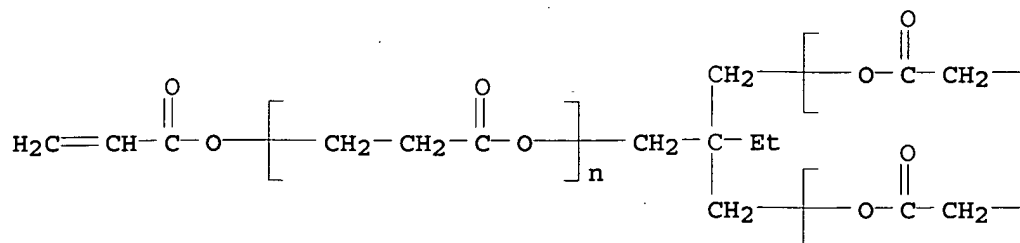
CM 1

CRN 848779-44-2

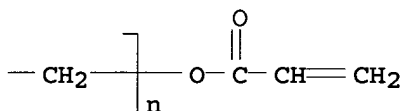
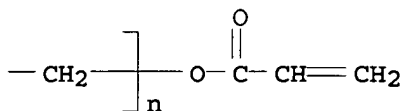
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CCI PMS

PAGE 1-A



PAGE 1-B

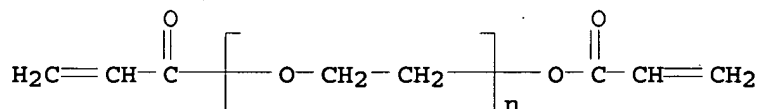


CM 2

CRN 26570-48-9

CMF (C2 H4 O)_n C6 H6 O3

CCI PMS



RN 848824-30-6 HCAPLUS

CN Poly[oxy(1-oxo-1,3-propanediyl)], α-hydro-ω-[(1-oxo-2-propenyl)oxy]-, ester with 2-ethyl-2-[(hydroxymethoxy)methyl]-1,3-propanediol (3:1), polymer with α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

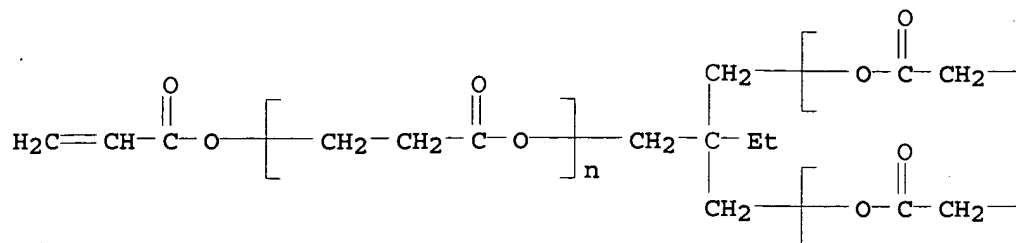
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CRN 848779-44-2

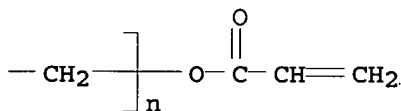
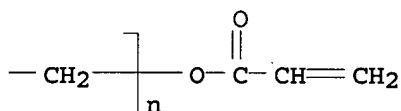
CMF (C3 H4 O2)_n (C3 H4 O2)_n (C3 H4 O2)_n C15 H20 O6

CCI PMS

PAGE 1-A



PAGE 1-B

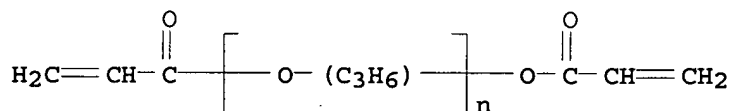


CM 2

CRN 52496-08-9

CMF (C3 H6 O)_n C6 H6 O3

CCI IDS, PMS



RN 848824-31-7 HCAPLUS

CN Poly[oxy(1-oxo-1,3-propanediyl)], α-hydro-ω-[(2-methyl-1-oxo-2-propenyl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-[(2-methyl-1-oxo-2-propenyl)oxy]poly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

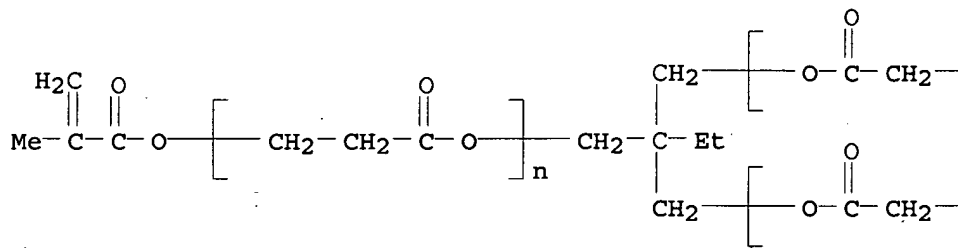
CM 1

CRN 848779-49-7

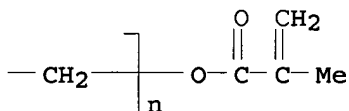
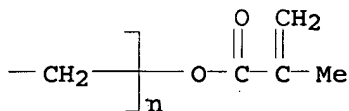
CMF (C3 H4 O2)_n (C3 H4 O2)_n (C3 H4 O2)_n C18 H26 O6

CCI PMS

PAGE 1-A



PAGE 1-B

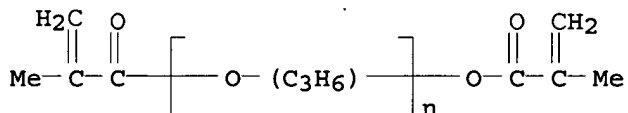


CM 2

CRN 25852-49-7

CMF (C3 H6 O)_n C8 H10 O3

CCI IDS, PMS



L91 ANSWER 7 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:155490 HCAPLUS

DN 142:264348

TI **Electrolyte** for rechargeable lithium battery

IN Lee, Yong-Beom; Song, Eui-Hwan; Kim, Kwang-Sup; Earmme, Tae-Shik; Kim, You-Mee

PA Samsung SDI Co., Ltd., S. Korea

SO Eur. Pat. Appl., 32 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1508934	A1	20050223	EP 2004-90320	20040819
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	KR 2005020067	A	20050304	KR 2003-57716	20030820
	KR 2005078443	A	20050805	KR 2004-5874	20040129

JP 2005072003	A	20050317	JP 2004-241017	20040820
US 2005084765	A1	20050421	US 2004-924248	20040820
CN 1612405	A	20050504	CN 2004-10098111	20040820

PRAI KR 2003-57716 A 20030820
KR 2004-5874 A 20040129

OS MARPAT 142:264348

AB Disclosed is an **electrolyte** for a rechargeable lithium battery, including a mixture of organic solvents including a cyclic solvent and a nitrile-based solvent represented by the formula R-C.tplbond.N (R is from C1-10 aliphatic hydrocarbons, C1-10 halogenated aliphatic hydrocarbons, C6-10 aromatic hydrocarbons, and C6-10 halogenated aromatic hydrocarbons) and a lithium salt.

IC ICM H01M010-40

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38

ST **electrolyte** rechargeable lithium battery

IT Nitriles, uses
RL: DEV (Device component use); USES (Uses)
(aliphatic, C1-10; **electrolyte** for rechargeable lithium battery)

IT Nitriles, uses
RL: DEV (Device component use); USES (Uses)
(aromatic, C6-10; **electrolyte** for rechargeable lithium battery)

IT Battery **electrolytes**
(**electrolyte** for rechargeable lithium battery)

IT Lactones
RL: DEV (Device component use); USES (Uses)
(**electrolyte** for rechargeable lithium battery)

IT Secondary batteries
(lithium; **electrolyte** for rechargeable lithium battery)

IT Peroxides, uses
RL: MOA (Modifier or additive use); USES (Uses)
(organic; **electrolyte** for rechargeable lithium battery)

IT 94-36-0, Dibenzoyl peroxide, processes 105-74-8, Dilauroyl peroxide
107-71-1, tert-Butylperoxy acetate 109-13-7, tert-Butylperoxyisobutyrate
110-22-5, Diacetyl peroxide 614-45-9, tert-Butylperoxy benzoate
686-31-7, tert-Amylperoxy 2-ethylhexanoate 927-07-1, tert-Butyl
peroxypivalate 2372-21-6, tert-Butyl peroxy isopropyl carbonate
3006-82-4, tert-Butyl peroxy-2-ethyl hexanoate 3851-87-4,
Bis(3,5,5-trimethyl)hexanoyl peroxide 4419-11-8, 2,2'-Azobis(2,4-
dimethylvaleronitrile) 13122-18-4, tert-Butylperoxy 3,5,5-
trimethylhexanoate 15518-51-1, Diethylene glycol bis(tert-
butylperoxy carbonate) 15520-11-3, Di(4-tert-
butylcyclohexyl)peroxydicarbonate 25551-14-8 26748-38-9, tert-Butyl
peroxy neoheptanoate 26748-41-4, tert-Butyl peroxy neodecanoate
29240-17-3, tert-Amyl peroxypivalate 34443-12-4, tert-Butyl peroxy
2-ethylhexyl carbonate 36536-42-2, 1,6-Hexanediol bis(tert-butyl
peroxycarbonate) 51240-95-0, 1,1,3,3-Tetramethylbutyl peroxy
neodecanoate 51938-28-4, tert-Hexylperoxypivalate 52238-68-3,
Bis(3-methoxybutyl) peroxydicarbonate 68860-54-8 96989-15-0
845717-44-4
RL: CPS (Chemical process); PEP (Physical, engineering or chemical
process); PROC (Process)
(**electrolyte** for rechargeable lithium battery)

IT 79-20-9, Methyl acetate 96-48-0, γ -Butyrolactone 96-49-1,
Ethylene carbonate 105-58-8, Diethyl carbonate 106-70-7, Methyl
hexanoate 107-12-0, Propionitrile 107-31-3, Methyl formate 108-29-2,
 γ -Valerolactone 108-32-7, Propylene carbonate 109-74-0,
Butyronitrile 110-59-8, Valeronitrile 124-12-9, Caprylonitrile
140-29-4, Phenylacetone nitrile 141-78-6, Ethyl acetate, uses 326-62-5,
2-Fluorophenylacetone nitrile 394-47-8, 2-Fluorobenzonitrile 459-22-3,

4-Fluorophenylacetonitrile 502-44-3, ε-Caprolactone 542-28-9, 8-Valerolactone 542-52-9, Dibutyl carbonate 616-38-6, Dimethyl carbonate 623-53-0, Ethyl methyl carbonate 623-96-1, Dipropyl carbonate 629-08-3, Heptanenitrile 630-18-2, tert-Butyl cyanide 695-06-7, γ-Caprolactone 766-05-2, Cyclohexanecarbonitrile 1194-02-1, 4-Fluorobenzonitrile 4254-02-8, Cyclopentanecarbonitrile 4437-85-8, Butylene carbonate 7439-93-2D, Lithium, salt 7791-03-9, Lithium perchlorate 12190-79-3, Cobalt lithium oxide (CoLiO₂) 14024-11-4, Lithium tetrachloroaluminate 14283-07-9, Lithium tetrafluoroborate 18424-17-4, Lithium hexafluoroantimonate 21324-40-3, Lithium hexafluorophosphate 29935-35-1, Lithium hexafluoroarsenate 33454-82-9, Lithium triflate 57381-51-8, 4-Chloro-2-fluoro-benzonitrile 60702-69-4, 2-Chloro-4-fluoro-benzonitrile 90076-65-6 90240-74-7 127813-79-0 132843-44-8 179802-95-0, Cobalt lithium manganese nickel oxide (Co_{0.1}LiMn_{0.1}Ni_{0.8}O₂) 845717-45-5

RL: DEV (Device component use); USES (Uses)

(electrolyte for rechargeable lithium battery)

IT 75-05-8, Acetonitrile, uses 77-77-0, DiVinyl sulfone 105-64-6, Di-isopropylperoxydicarbonate 628-73-9, Capronitrile 872-36-6, Vinylene carbonate 3741-38-6, Ethylene sulfite 16111-62-9, Bis(2-ethylhexyl) peroxydicarbonate 22537-94-6 71331-99-2, Bis(4-tert-butylcyclohexyl)peroxycarbonate 114435-02-8, Fluoroethylene carbonate

RL: MOA (Modifier or additive use); USES (Uses)

(electrolyte for rechargeable lithium battery)

IT 845717-45-5

RL: DEV (Device component use); USES (Uses)

(electrolyte for rechargeable lithium battery)

RN 845717-45-5 HCAPLUS

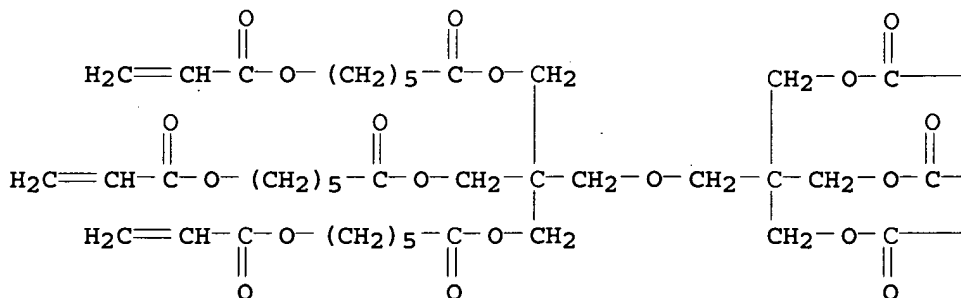
CN Hexanoic acid, 6-[(1-oxo-2-propenyl)oxy]-, 2-[[3-[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-2,2-bis[[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]methyl]propoxy]methyl]-2-[[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]methyl]-1,3-propanediyl ester, polymer with bis[4-(1,1-dimethylethyl)cyclohexyl] peroxydicarbonate (9CI) (CA INDEX NAME)

CM 1

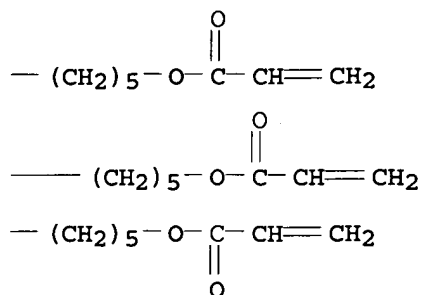
CRN 93294-97-4

CMF C64 H94 O25

PAGE 1-A



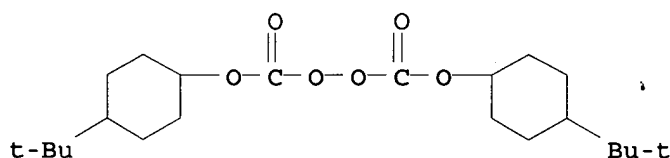
PAGE 1-B



CM 2

CRN 15520-11-3

CMF C22 H38 O6



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 8 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:120980 HCAPLUS
DN 142:178842
TI Hydroxy-functional binder components for wood varnishes
IN Reidlinger, Gerhard; Billiani, Johann; Zrin, Ewald; Scherz, Johannes
PA Surface Specialties Austria GmbH, Austria
SO PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005012370	A1	20050210	WO 2004-EP7718	20040713
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AT 200301160	A	20050215	AT 2003-1160	20030723
AT 412971	B	20050926		

CA 2532897	A1	20050210	CA 2004-2532897	20040713
EP 1654293	A1	20060510	EP 2004-763187	20040713
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
US 2006194922	A1	20060831	US 2006-565028	20060118
NO 2006000889	A	20060424	NO 2006-889	20060223
PRAI AT 2003-1160	A	20030723		
WO 2004-EP7718	W	20040713		

AB The invention relates to hydroxy-functional binder components ABC containing a linear or branched main chain having a polymethylene structure or a polyester structure or a structure derived from the fatty acid esters of glycerin or other polyvalent alcs. with good storage stability for wood varnishes. The invention is characterized in that said components have grafted cyclic imide structures on the main chain, wherein the imide-nitrogen atom is substituted by a hydroxyalkyl group or a hydroxyalkyl-aryl group. The invention also relates to method for the production of said components by reacting olefinically unsatd. acid anhydrides (B) and hydroxyamines (C) with olefinically unsatd. component (A) having mol. weight 400-6000 selected from oils, partially saponified or transesterified

oils, low-mol.-weight alkyd resins, and oligomers or polymers of diolefins. A typical ABC adduct was manufactured by reaction of 643 g resin prepared by reaction of 600 g maleated soybean oil with 61 g ethanolamine with 588 g resin prepared by reaction of radical polymerization of linseed-oil fatty acid 71, iso-Bu methacrylate 55, p-methylstyrene 10, and methacrylic acid 35 g at 190°.

IC ICM C08F008-00

ICS C08F008-46; C08F008-30; C08G063-91; C09D123-26; C09D167-00

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 43

ST hydroxy imide resin storage stable wood varnish; linseed fatty acid methacrylate methylstyrene methacrylic acid copolymer varnish; maleated soybean oil ethanolamine hydroxy imide resin wood varnish

IT Esters, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(acid-modified hydroxy imide-functional binders with good storage stability for wood varnishes)

IT Alkyd resins

Polyesters, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(derivs.; hydroxy imide-functional binders with good storage stability for wood varnishes)

IT Varnishes

Wood

(hydroxy imide-functional binders with good storage stability for wood varnishes)

IT Urethanes

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(isocyanate-modified hydroxy imide-functional binders with good storage stability for wood varnishes)

IT Fatty acids, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(linseed-oil, polymers with vinyl monomers, reaction products with ethanolamine and maleated soybean oil; hydroxy imide-functional binders with good storage stability for wood varnishes)

IT Soybean oil

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (maleated, reaction products, with ethanolamine and vinyl monomer-linseed oil copolymers; hydroxy imide-functional binders with good storage stability for wood varnishes)

IT Imides

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (polymer derivs.; hydroxy imide-functional binders with good storage stability for wood varnishes)

IT Fatty acids, preparation

RL: IMF (Industrial manufacture); PREP (Preparation)
 (tall-oil, reaction products, with glycerol and phthalic anhydride, binder precursor; hydroxy imide-functional binders with good storage stability for wood varnishes)

IT Coating materials

(water-thinned, transparent; hydroxy imide-functional binders with good storage stability for wood varnishes)

IT 56-81-5DP, Glycerol, reaction products with tall-oil fatty acids and phthalic anhydride 85-44-9DP, Phthalic anhydride, reaction products with tall-oil fatty acids-glycerol adducts

RL: IMF (Industrial manufacture); PREP (Preparation)
 (binder precursor; hydroxy imide-functional binders with good storage stability for wood varnishes)

IT 79-41-4DP, Methacrylic acid, polymers with linseed-oil fatty acids and vinyl monomers, reaction products with ethanolamine and maleated soybean oil 97-86-9DP, Isobutyl methacrylate, polymers with linseed-oil fatty acids and vinyl monomers, reaction products with ethanolamine and maleated soybean oil 108-31-6DP, Maleic anhydride, reaction products with soybean oil, vinyl monomer-linseed oil copolymers, and ethanolamine 141-43-5DP, Ethanolamine, reaction products with maleated soybean oil and vinyl monomer-linseed oil copolymers 552-30-7DP, Trimellitic anhydride, reaction products with ethanolamine adducts of maleated soybean oil 622-97-9DP, p-Methylstyrene, polymers with linseed-oil fatty acids and vinyl monomers, reaction products with ethanolamine and maleated soybean oil

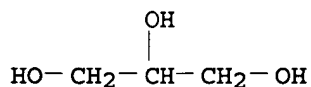
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (hydroxy imide-functional binders with good storage stability for wood varnishes)

IT 56-81-5DP, Glycerol, reaction products with tall-oil fatty acids and phthalic anhydride

RL: IMF (Industrial manufacture); PREP (Preparation)
 (binder precursor; hydroxy imide-functional binders with good storage stability for wood varnishes)

RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



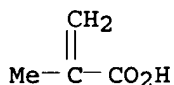
IT 79-41-4DP, Methacrylic acid, polymers with linseed-oil fatty acids and vinyl monomers, reaction products with ethanolamine and maleated soybean oil

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (hydroxy imide-functional binders with good storage stability for wood

varnishes)

RN 79-41-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl- (9CI) (CA INDEX NAME)



RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 9 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:203431 HCAPLUS

DN 140:238483

TI **Electrolyte** for a lithium battery

IN Park, Yong-Chul; Jung, Won-Ii; Kim, Geun-Bae; Cho, Jae-Phil; Jung, Cheol-Soo

PA S: Korea

SO U.S. Pat. Appl. Publ., 13 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004048163	A1	20040311	US 2003-656086	20030905
	KR 2004022054	A	20040311	KR 2002-53879	20020906
	JP 2004103573	A	20040402	JP 2003-282119	20030729
	CN 1495961	A	20040512	CN 2003-164853	20030906
PRAI	KR 2002-53879	A	20020906		

OS MARPAT 140:238483

AB An **electrolyte** for a lithium battery includes a nonaq. organic solvent, a lithium salt, and an additive comprising (a) a sulfone-based compound and (b) a C3-30 organic peroxide or azo-based compound. The **electrolyte** may further include a poly(ester)(meth)acrylate or a polymer that is derived from a (polyester)polyol with at least three hydroxyl (-OH) groups, where a portion or all of the hydroxyl groups are substituted with a (meth)acrylic ester and the remaining hydroxyl groups that are not substituted with the (meth)acrylic ester are substituted with a group having no **radical reactivity**. The lithium battery comprising the **electrolyte** of the present invention has a significantly improved charge-discharge and cycle life characteristics, recovery capacity ratio at high temperature, and swelling inhibition properties.

IC ICM H01M010-40

INCL 429326000; 429329000; 429339000; 429340000

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38

ST lithium battery **electrolyte**IT Battery **electrolytes**

(electrolyte for lithium battery)

IT Aromatic hydrocarbons, uses

Carbonates, uses

Esters, uses

Ethers, uses

Ketones, uses

RL: DEV (Device component use); USES (Uses)

(electrolyte for lithium battery)

- IT Azo compounds
RL: MOA (Modifier or additive use); USES (Uses)
(**electrolyte** for lithium battery)
- IT Carbonaceous materials (technological products)
RL: MOA (Modifier or additive use); USES (Uses)
(**electrolyte** for lithium battery)
- IT Sulfones
RL: MOA (Modifier or additive use); USES (Uses)
(**electrolyte** for lithium battery)
- IT Polyesters, uses
RL: DEV (Device component use); USES (Uses)
(hydroxy-terminated; **electrolyte** for lithium battery)
- IT Secondary batteries
(lithium; **electrolyte** for lithium battery)
- IT Polyesters, uses
RL: DEV (Device component use); USES (Uses)
(methacrylate; **electrolyte** for lithium battery)
- IT Peroxides, uses
RL: MOA (Modifier or additive use); USES (Uses)
(organic; C3-30; **electrolyte** for lithium battery)
- IT Esters, uses
RL: DEV (Device component use); USES (Uses)
(poly-; **electrolyte** for lithium battery)
- IT Imides
Sulfonic acids, uses
RL: DEV (Device component use); USES (Uses)
(sulfonimides, perfluoro derivs., lithium salts; **electrolyte** for lithium battery)
- IT 56-81-5, Glycerol, uses 71-43-2, Benzene, uses 96-49-1, Ethylene carbonate 98-95-3, Nitrobenzene, uses 105-58-8, Diethyl carbonate 108-32-7, Propylene carbonate 108-88-3, Toluene, uses 108-90-7, Chlorobenzene, uses 149-32-6, Erythritol 462-06-6, Fluorobenzene 616-38-6, Dimethyl carbonate 623-53-0, Methylene carbonate 623-96-1, Dipropyl carbonate 1330-20-7, Xylene, uses 4437-85-8, Butylene carbonate 7790-99-0, Iodine chloride (ICl) 7791-03-9, Lithium perchlorate 10377-51-2, Lithium iodide (LiI) 14024-11-4, Lithium tetrachloroaluminate 14283-07-9, Lithium tetrafluoroborate 18424-17-4, Lithium hexafluoroantimonate 21324-40-3, Lithium hexafluorophosphate 27359-10-0, Trifluorotoluene 29935-35-1, Lithium hexafluoroarsenate 33454-82-9, Lithium triflate 35363-40-7, Ethyl propyl carbonate, uses 39300-70-4, Lithium nickel oxide 56525-42-9, Methyl propyl carbonate, uses 90076-65-6 131651-65-5, Lithium nonafluorobutanesulfonate 162684-16-4, Lithium manganese nickel oxide 193215-00-8, Cobalt lithiummanganese nickel oxide Co_{0.1}LiMn_{0.2}Ni_{0.7}O₂
RL: DEV (Device component use); USES (Uses)
(**electrolyte** for lithium battery)
- IT 67-71-0, Methyl sulfone 77-77-0, Vinyl sulfone 78-67-1, 2,2'-Azobisisobutyronitrile 94-36-0, Benzoyl peroxide, uses 105-64-6, Diisopropyl peroxy dicarbonate 105-74-8, Lauroyl peroxide 126-33-0, Tetramethylene sulfone 127-63-9, Phenyl sulfone 620-32-6, Benzyl sulfone 1561-49-5, Dicyclohexylperoxy dicarbonate 1712-87-4, m-Toluoyle peroxide 3006-82-4, tert-Butylperoxy-2-ethyl hexanoate 14666-78-5 15520-11-3, Bis(4-tert-butylcyclohexyl)peroxy dicarbonate 26748-41-4 28452-93-9, Butadiene sulfone 32752-09-3, Isobutyl peroxide 92177-99-6, 3,3,5-Trimethylhexanoyl peroxide
RL: MOA (Modifier or additive use); USES (Uses)
(**electrolyte** for lithium battery)
- IT 79-10-7DP, Acrylic acid, reaction product with dipentaerythritol and ε-caprolactone and butylcarbonic acid 126-58-9DP, Dipentaerythritol, reaction product with ε-caprolactone and

acrylic acid and butylcarbonic acid 502-44-3DP, ϵ -Caprolactone, reaction product with dipentaerythritol and acrylic acid and butylcarbonic acid 10411-26-4DP, MonoButylcarbonate, reaction product with dipentaerythritol and ϵ -caprolactone and acrylic acid

RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(electrolyte for lithium battery)

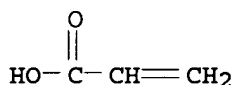
IT 79-10-7DP, Acrylic acid, reaction product with dipentaerythritol and ϵ -caprolactone and butylcarbonic acid 126-58-9DP, Dipentaerythritol, reaction product with ϵ -caprolactone and acrylic acid and butylcarbonic acid 10411-26-4DP, MonoButylcarbonate, reaction product with dipentaerythritol and ϵ -caprolactone and acrylic acid

RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(electrolyte for lithium battery)

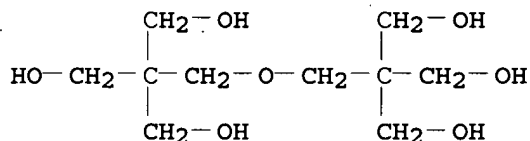
RN 79-10-7 HCAPLUS

CN 2-Propenoic acid (9CI) (CA INDEX NAME)



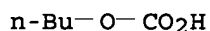
RN 126-58-9 HCAPLUS

CN 1,3-Propanediol, 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)- (9CI) (CA INDEX NAME)



RN 10411-26-4 HCAPLUS

CN Carbonic acid, monobutyl ester (8CI, 9CI) (CA INDEX NAME)



L91 ANSWER 10 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:182343 HCAPLUS

DN 140:202488

TI Polymer electrolyte for lithium secondary battery with improved safety and reduced swelling

IN Lee, Yong-beom

PA Samsung Sdi Co.,ltd., S. Korea

SO U.S. Pat. Appl. Publ., 8 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	US 2004043298	A1	20040304	US 2003-440245	20030519

KR 2004020631 A 20040309 KR 2002-52280 20020831
CN 1479401 A 20040303 CN 2003-152463 20030704
PRAI KR 2002-52280 A 20020831

AB The invention concerns a polymer **electrolyte** that extends the cycle life, improves the safety, and reduces the swelling of a battery, compared with a polymer **electrolyte** containing a poly(alkylene oxide) polymer. Also, a lithium battery utilizes the polymer **electrolyte**. The polymer **electrolyte** contains a polymerized product from a polymer **electrolyte** forming composition containing a multifunctional isocyanurate monomer of a particular structure, a lithium salt, and a nonaq. organic solvent.

IC ICM H01M006-18
INCL 429323000

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38

ST polymer **electrolyte** lithium secondary battery improved safety, reduced swelling

IT Peroxides, processes
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(acyl, polymerization initiator; polymer **electrolyte** for lithium secondary battery with improved safety and reduced swelling)

IT Peroxides, processes
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(alkyl, polymerization initiator; polymer **electrolyte** for lithium secondary battery with improved safety and reduced swelling)

IT Hydroperoxides
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(alkyl, tertiary, polymerization initiator; polymer **electrolyte** for lithium secondary battery with improved safety and reduced swelling)

IT Secondary batteries
(lithium; polymer **electrolyte** for lithium secondary battery with improved safety and reduced swelling)

IT Esters, processes
Ketals
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(peroxy, polymerization initiator; polymer **electrolyte** for lithium secondary battery with improved safety and reduced swelling)

IT Carbonates, processes
Peroxides, processes
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(peroxycarbonates, polymerization initiator; polymer **electrolyte** for lithium secondary battery with improved safety and reduced swelling)

IT Battery **electrolytes**
Polymerization catalysts
Safety
Swelling, physical
(polymer **electrolyte** for lithium secondary battery with improved safety and reduced swelling)

IT Carbon fibers, uses
Carbonaceous materials (technological products)
RL: DEV (Device component use); USES (Uses)
(polymer **electrolyte** for lithium secondary battery with improved safety and reduced swelling)

IT Azo compounds
RL: CPS (Chemical process); PEP (Physical, engineering or chemical

process); PROC (Process)
(polymerization initiator; polymer electrolyte for lithium secondary battery with improved safety and reduced swelling)

IT Lithium alloy, base
RL: DEV (Device component use); USES (Uses)
(polymer electrolyte for lithium secondary battery with improved safety and reduced swelling)

IT 96-47-9, 2-Methyltetrahydrofuran 96-48-0, γ -Butyrolactone
96-49-1, Ethylene carbonate 105-58-8, Diethyl carbonate 107-31-3,
Methyl formate 108-32-7, Propylene carbonate 109-94-4, Ethyl formate
109-99-9, Thf, uses 112-49-2, Triglyme 143-24-8, Tetraglyme
462-06-6, Fluorobenzene 616-38-6, Dimethyl carbonate 4824-75-3,
Butylmethyl carbonate 7439-93-2, Lithium, uses 7704-34-9, Sulfur, uses
7704-34-9D, Sulfur, compds. 7782-42-5, Graphite, uses 7791-03-9,
Lithium perchlorate 12190-79-3, Cobalt lithium oxide colio2
14283-07-9, Lithium tetrafluoroborate 21324-40-3, Lithium
hexafluorophosphate 27858-05-5, DiFluorobenzene 29935-35-1, Lithium
hexafluoroarsenate 33454-82-9, Lithium triflate 35363-40-7, Ethyl
propylcarbonate, uses 39300-70-4, Lithium nickel oxide 39457-42-6,
Lithium manganese oxide 51177-06-1, Chromium lithium oxide 52627-24-4,
Cobalt lithium oxide 56525-42-9, Methyl propylcarbonate, uses
73506-93-1, Diethoxyethane 90076-65-6 131651-65-5 132843-44-8
654675-99-7, Lithium boride fluoride libf6
RL: DEV (Device component use); USES (Uses)
(polymer electrolyte for lithium secondary battery with improved safety and reduced swelling)

IT 42033-33-0P, Tris(2-acryloyloxy)ethyl isocyanurate homopolymer
90802-77-0P 93295-01-3P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP
(Preparation); USES (Uses)
(polymer electrolyte for lithium secondary battery with improved safety and reduced swelling)

IT 15520-11-3, Di(4-tert-butylcyclohexyl)peroxy dicarbonate 34099-48-4,
Peroxydicarbonate
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(polymerization initiator; polymer electrolyte for lithium secondary battery with improved safety and reduced swelling)

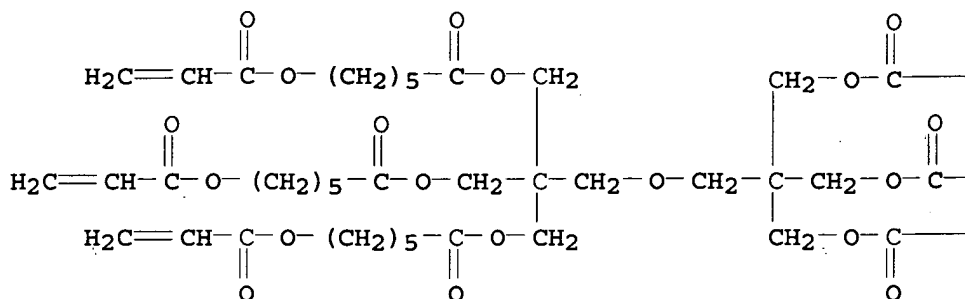
IT 93295-01-3P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP
(Preparation); USES (Uses)
(polymer electrolyte for lithium secondary battery with improved safety and reduced swelling)

RN 93295-01-3 HCAPLUS
CN Hexanoic acid, 6-[(1-oxo-2-propenyl)oxy]-, 2-[[[3-[[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-2,2-bis[[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]methyl]propoxy]methyl]-2-[[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]methyl]-1,3-propanediyl ester, polymer with (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tri-2,1-ethanediyl tri-2-propenoate (9CI) (CA INDEX NAME)

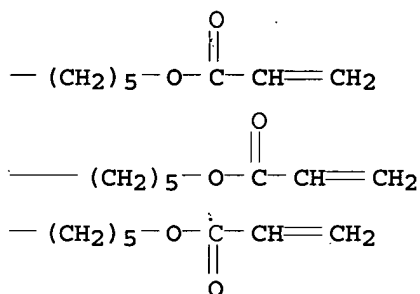
CM 1

CRN 93294-97-4
CMF C64 H94 O25

PAGE 1-A



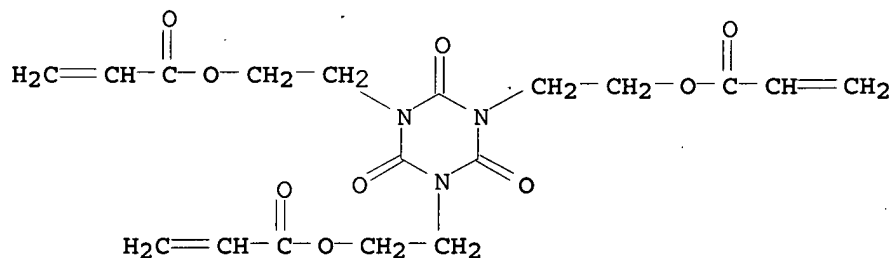
PAGE 1-B



CM 2

CRN: 40220-08-4

CMF C18 H21 N3 O9



L91 ANSWER 11 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:119841 HCAPLUS

DN 140:166772

TI Polymer electrolyte for lithium-sulfur battery

IN Hwang, Duck-chul; Lee, Kyoung-hee

PA Samsung Sdi Co., Ltd., S. Korea

SO U.S. Pat. Appl. Publ., 15 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

KATHLEEN FULLER EIC1700 REMSEN 4B28 571/272-2505

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004029016	A1	20040212	US 2003-635122	20030806
	KR 2004014163	A	20040214	KR 2003-28968	20030507
	JP 2004071560	A	20040304	JP 2003-279998	20030725
	CN 1495956	A	20040512	CN 2003-127275	20030807
PRAI	KR 2002-46580	A	20020807		
	KR 2003-28968	A	20030507		
AB	Disclosed is a polymer electrolyte for a lithium sulfur battery. The electrolyte includes a monomer with a methacrylate group, an initiator, an organic solvent, and a lithium salt.				
IC	ICM H01M010-40				
INCL	429317000; X42-918.9; X42-930.7				
CC	52-2 (Electrochemical, Radiational, and Thermal Energy Technology) Section cross-reference(s): 38				
ST	polymer electrolyte lithium sulfur battery				
IT	Polyesters, uses RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) (hexacrylate-based; polymer electrolyte for lithium-sulfur battery)				
IT	Secondary batteries (lithium; polymer electrolyte for lithium-sulfur battery)				
IT	Intercalation compounds RL: DEV (Device component use); USES (Uses) (lithium; polymer electrolyte for lithium-sulfur battery)				
IT	Alcohols, uses RL: DEV (Device component use); USES (Uses) (polyhydric, esters; polymer electrolyte for lithium-sulfur battery)				
IT	Lithium alloy, base RL: DEV (Device component use); USES (Uses) (polymer electrolyte for lithium-sulfur battery)				
IT	3087-37-4, Tetrapropyltitanate RL: CAT (Catalyst use); USES (Uses) (polymer electrolyte for lithium-sulfur battery)				
IT	56-81-5, Glycerol, uses 110-71-4 149-32-6, Erythritol 646-06-0, 1,3-Dioxolane 7439-93-2, Lithium, uses 7439-93-2D, Lithium, intercalation compound 7704-34-9, Sulfur, uses 7704-34-9D, Sulfur, compound 74432-42-1, Lithium polysulfide 90076-65-6 RL: DEV (Device component use); USES (Uses) (polymer electrolyte for lithium-sulfur battery)				
IT	79-10-7DP, Acrylic acid, reaction product with dipentaerythritol and ϵ -caprolactone and butylcarbonic acid 126-58-9DP, Dipentaerythritol, reaction product with ϵ -caprolactone and acrylic acid and butylcarbonic acid 502-44-3DP, ϵ -Caprolactone, reaction product with dipentaerythritol and acrylic acid and butylcarbonic acid 10411-26-4DP, reaction product with dipentaerythritol and ϵ -caprolactone and acrylic acid RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) (polymer electrolyte for lithium-sulfur battery)				
IT	180049-13-2, Aluminum boride nitride Albn RL: MOA (Modifier or additive use); USES (Uses) (polymer electrolyte for lithium-sulfur battery)				
IT	75-91-2, tert-Butylhydroperoxide 78-63-7, 2,5-Dimethyl-2,5-di(tert-butylperoxy)hexane 78-67-1, Azobisisobutyronitrile 80-15-9, Cumene hydroperoxide 80-43-3, Dicumyl peroxide 94-36-0, Benzoyl peroxide, processes 105-64-6, Diisopropyl peroxy dicarbonate 105-74-8, Lauroyl peroxide 110-05-4, Di-tert-butyl peroxide 1561-49-5, Dicyclo				

hexylperoxy dicarbonate 1712-87-4, m-Toluoyl peroxide 2167-23-9,
 2,2-Di(tert-butylperoxy)butane 3006-82-4, tert-Butyl peroxy-2-ethyl
 hexanoate 3025-88-5, 2,5-Dihydroperoxy-2,5-dimethylhexane 14666-78-5
 15520-11-3, Bis(4-tert-butylcyclohexyl)peroxy dicarbonate 16066-38-9,
 Di(n-propyl)peroxy-dicarbonate 16111-62-9, Di(2-
 ethylhexyl)peroxydicarbonate 19910-65-7, Di(sec-butyl)peroxy dicarbonate
 26748-47-0, α-Cumyl peroxy neodecanoate 32752-09-3, Isobutyl
 peroxide 52373-75-8 55794-20-2, Ethyl 3,3-di(tert-butylperoxy)butyrate
 92177-99-6, 3,3,5-Trimethylhexanoyl peroxide 95732-35-7 116657-72-8,
 tert-Butyl neodecanoate 118416-46-9
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical
 process); PROC (Process)

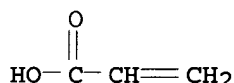
(polymerization initiator; polymer electrolyte for lithium-sulfur
 battery)

IT 79-10-7DP, Acrylic acid, reaction product with dipentaerythritol
 and ε-caprolactone and butylcarbonic acid 126-58-9DP,
 Dipentaerythritol, reaction product with ε-caprolactone and
 acrylic acid and butylcarbonic acid 10411-26-4DP, reaction
 product with dipentaerythritol and ε-caprolactone and acrylic acid
 RL: DEV (Device component use); PRP (Properties); SPN (Synthetic
 preparation); PREP (Preparation); USES (Uses)

(polymer electrolyte for lithium-sulfur battery)

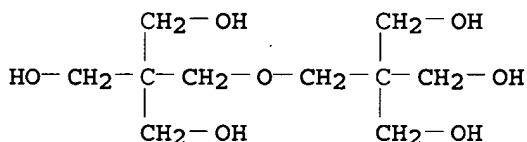
RN 79-10-7 HCAPLUS

CN 2-Propenoic acid (9CI) (CA INDEX NAME)



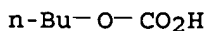
RN 126-58-9 HCAPLUS

CN 1,3-Propanediol, 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)]- (9CI) (CA
 INDEX NAME)



RN 10411-26-4 HCAPLUS

CN Carbonic acid, monobutyl ester (8CI, 9CI) (CA INDEX NAME)



L91 ANSWER 12 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:429233 HCAPLUS

DN 137:22362

TI Composition of polymer electrolyte, the electrolyte,
 and polymer electrolyte battery

IN Mori, Satoshi; Yokoshima, Minoru

PA Nippon Kayaku Kabushiki Kaisha, Japan

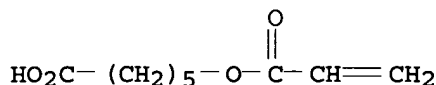
SO PCT Int. Appl., 60 pp.

CODEN: PIXXD2

DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002045099	A1	20020606	WO 2001-JP10439	20011129
	W: CA, CN, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	JP 2003147218	A	20030521	JP 2001-362639	20011128
	CA 2429835	A1	20020606	CA 2001-2429835	20011129
	TW 541749	B	20030711	TW 2001-90129530	20011129
	EP 1347462	A1	20030924	EP 2001-998190	20011129
	EP 1347462	B1	20060308		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	US 2004076886	A1	20040422	US 2003-432419	<u>20030718</u>
	US 7033706	B2	20060425		
PRAI	JP 2000-364083	A	20001130		
	JP 2001-39298	A	20010216		
	JP 2001-243125	A	20010810		
	JP 2001-255437	A	20010827		
	WO 2001-JP10439	W	20011129		
AB	The electrolyte composition contains 0.5-5% of a curable resin, a plasticizer, and an electrolyte . The resin is a polymer of a curable monomer having ≥ 4 reactive functional groups/mol. and function group equivalent ≤ 150 . The functional groups are preferably a (meth)acryl group. The electrolyte is a hardened material of the composition				
IC	ICM H01B001-06				
	ICS C08F020-26; C08F290-06; H01M010-40				
CC	52-2 (Electrochemical, Radiational, and Thermal Energy Technology)				
ST	battery polymer electrolyte curable resin compn				
IT	Battery electrolytes (comps. of polymer electrolytes containing curable resins for secondary lithium batteries)				
IT	96-49-1, Ethylene carbonate 105-58-8, Diethyl carbonate 14283-07-9, Lithium fluoroborate 21324-40-3, Lithium hexafluorophosphate 40629-38-7, Acrylic acid-ethyl acrylate-glycidyl methacrylate copolymer 55940-76-6 67653-78-5 103315-68-0 110083-30-2 427897-99-2 434343-95-0 434343-96-1 434343-97-2 434941-59-0 RL: DEV (Device component use); USES (Uses) (comps. of polymer electrolytes containing curable resins for secondary lithium batteries)				
IT	110083-30-2 RL: DEV (Device component use); USES (Uses) (comps. of polymer electrolytes containing curable resins for secondary lithium batteries)				
RN	110083-30-2 HCAPLUS				
CN	Hexanoic acid, 6-[(1-oxo-2-propenyl)oxy]-, diester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol] tetra-2-propenoate, homopolymer (9CI) (CA INDEX NAME)				
CM	1				
CRN	93365-34-5				
CMF	C40 H54 O17				
CCI	IDS				
CM	2				

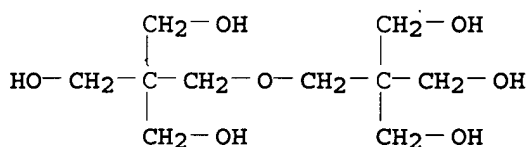
CRN 93365-33-4
CMF C9 H14 O4



acrylic monomer per claim 12

CM 3

CRN 126-58-9
CMF C10 H22 O7

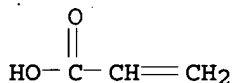


polyol

CM 4

CRN 79-10-7
CMF C3 H4 O2

no radical reactivity per claim 11



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 13 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:139095 HCAPLUS

DN 136:203050

TI Polymeric ionic conductors, their preparation, batteries using same
conductors, and preparation of same batteries

IN Nakagawa, Hiroe; Izuchi, Shuichi; Kishi, Takaaki

PA Yuasa Corporation, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002056894	A	20020222	JP 2000-241975	20000810
PRAI	JP 2000-241975		20000810		

AB An ionic conductor comprises a porous substrate, an organic polymer laminated on at least one side of the substrate, and an electrolyte. In preparation of the ionic conductor, a polymerizable monomer is irradiated with an ionizing radiation for simultaneous polymerization, crosslinking, and formation of fine pores where at a part of the electrolyte is

retained. Batteries using the polymeric ionic conductors as **electrolytes** are also claimed. In preparation of the batteries, power-generating constituents are first incorporated in battery containers, and then **electrolyte** solns. are injected. The ionic conductors show high ionic conductivity, Li⁺ transportability, **electrolyte**-retaining ability, mech. strength, and temperature stress resistance, so that Li batteries using the conductors show high performance.

IC ICM H01M010-40

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38, 76

ST crosslinked porous polymer ionic conductor prepn; battery **electrolyte** ionic conductor crosslinked porous polymer; lithium battery **electrolyte** crosslinked porous polymer; ionizing radiation polymn battery porous **electrolyte**

IT Crosslinking

Polymerization

(irradiation with ionizing radiation; preparation of porous crosslinked polymer ionic conductors for battery **electrolytes**)

IT Polypropene fibers, uses

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(nonwoven fabrics, substrate for ionic conductors; preparation of porous crosslinked polymer ionic conductors for battery **electrolytes**)

IT Polyethers, uses

RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polyester-, crosslinked, porous ionic conductor; preparation of porous crosslinked polymer ionic conductors for battery **electrolytes**)

IT Polyesters, uses

RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polyether-, crosslinked, porous ionic conductor; preparation of porous crosslinked polymer ionic conductors for battery **electrolytes**)

IT Porous materials

(polymer ionic conductors; preparation of porous crosslinked polymer ionic conductors for battery **electrolytes**)

IT Battery **electrolytes**

Ionic conductors

Polymer **electrolytes**

Secondary batteries

(preparation of porous crosslinked polymer ionic conductors for battery **electrolytes**)

IT 262859-71-2P

RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(crosslinked, porous ionic conductor; preparation of porous crosslinked polymer ionic conductors for battery **electrolytes**)

IT 262859-71-2P

RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(crosslinked, porous ionic conductor; preparation of porous crosslinked

polymer ionic conductors for battery electrolytes)

RN 262859-71-2 HCAPLUS

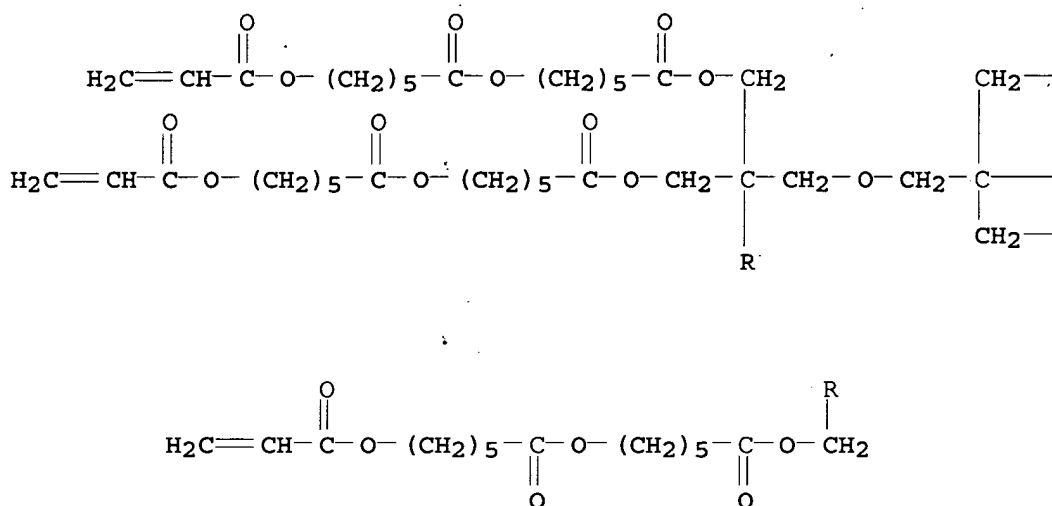
CN Hexanoic acid, 6-[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-, oxybis[2,2-bis[[[1-oxo-6-[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]hexyl]oxy]methyl]-3,1-propanediyl] ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

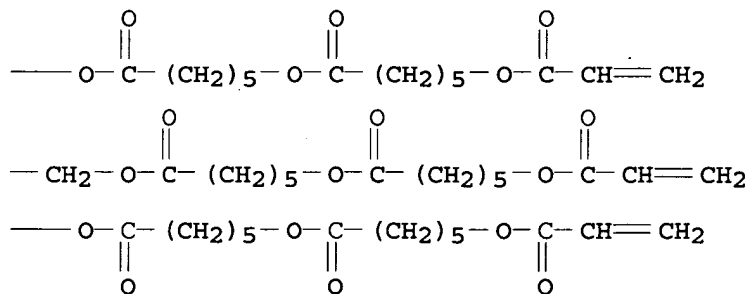
CRN 93294-99-6

CMF C100 H154 O37

PAGE 1-A



PAGE 1-B



L91 ANSWER 14 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:85605 HCAPLUS

DN 136:310244

TI Synthesis and characterization of monomers and polymers for adhesives from methyl oleate

AU Bunker, Shana P.; Wool, Richard P.

CS Department of Chemical Engineering, Center for Composite Materials,
University of Delaware, Newark, DE, 19716, USA

SO Journal of Polymer Science, Part A: Polymer Chemistry (2002), 40(4),

451-458

CODEN: JPACEC; ISSN: 0887-624X

PB John Wiley & Sons, Inc.

DT Journal

LA English

AB The focus of this work is to synthesize a monomer from a fatty acid Me ester capable of forming high mol. weight polymers. The mono-unsatn. in the starting material, Me oleate, was first epoxidized using a peroxy acid. This intermediate material was further modified using acrylic acid. The acrylated mol. is able to participate in free-radical polymerization reactions to form high mol. weight polymers. The rate of polymerization was low because of the long aliphatic structure of the monomer. It is hypothesized that the polymerization reaction occurred in the interface between the particle and water, thereby slowing down the reaction. After 18 h of reaction, a monomer conversion of approx. 91% was achieved. A maximum weight-average mol. weight of approx. 106 g/mol was observed after 14 h of reaction.

At early reaction times linear polymers were formed. However, as the reaction time increased, the amount of branching that occurred on the polymer mol. increased, as indicated by gel permeation chromatog. and light scattering. This has been attributed to chain transfer to polymer via hydrogen abstraction from a tertiary backbone C-H bond. The resulting polymer may be of considerable interest for pressure-sensitive adhesive applications.

CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 38

ST methyl oleate epoxidized acrylate ester acrylic acid copolymer prepn; pressure sensitive adhesive application methyl oleate acrylate copolymer

IT Polymerization

(emulsion; in preparation and characterization of monomers and polymers for adhesives from Me oleate)

IT Epoxidation

(in preparation and characterization of monomers and polymers for adhesives from Me oleate)

IT Adhesives

(pressure-sensitive; synthesis and characterization of monomers and polymers for adhesives from Me oleate)

IT Molecular weight

Polydispersity

(synthesis and characterization of monomers and polymers for adhesives from Me oleate)

IT 79-10-7, Acrylic acid, reactions 112-62-9, Methyl oleate

RL: RCT (Reactant); RACT (Reactant or reagent)

(in preparation and characterization of monomers and polymers for adhesives from Me oleate)

IT 2500-59-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(in preparation and characterization of monomers and polymers for adhesives from Me oleate)

IT 367959-05-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and characterization of monomers and polymers for adhesives from Me oleate)

IT 367959-04-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and characterization of monomers and polymers for adhesives from Me oleate)

IT 367959-05-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of monomers and polymers for adhesives
from Me oleate)

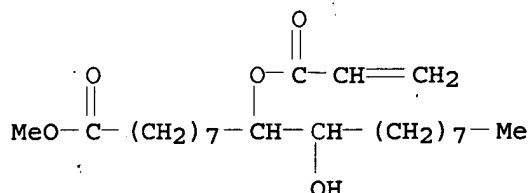
RN 367959-05-5 HCAPLUS

CN Octadecanoic acid, 10-hydroxy-9-[(1-oxo-2-propenyl)oxy]-, methyl ester,
polymer with 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 367959-04-4

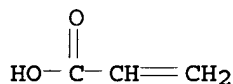
CMF C22 H40 O5



CM 2

CRN 79-10-7

CMF C3 H4 O2



RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 15 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:842414 HCAPLUS

DN 134:18092

TI Production and properties of polyoxyalkylene diacrylate-based polymer
electrolyte for battery **electrolyte**

IN Nakagawa, Hiroe; Izuchi, Syuichi; Kishi, Takaaki; Watanabe, Toshiyuki

PA Yuasa Corp., Japan

SO PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000072399	A1	20001130	WO 2000-JP3259	20000522
	W: JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1199764	A1	20020424	EP 2000-927838	20000522
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
PRAI	JP 1999-142768	A	19990524		
	JP 1999-326784	A	19991117		

JP 2000-10295 A 20000117
JP 2000-10296 A 20000117
WO 2000-JP3259 W 20000522

AB Title polymer **electrolyte** having a structure in which an organic electrolytic liquid is held in an organic polymer, is characterized by the following structures: (i) the backbone of the organic polymer has a crosslinked structure, (ii) the organic polymer has a finely porous structure, and (iii) the organic electrolytic liquid is held by the backbone of the organic polymer through swelling and simultaneously held in the fine pores. This polymer **electrolyte** has high ionic conductivity and can retain a stable structure over long.

IC H01M010-40; H01M002-16

CC 37-5 (Plastics Manufacture and Processing)

Section cross-reference(s): 36, 76

ST polyoxyalkylene acrylate polymer **electrolyte** structure ion cond battery

IT Solvent effect

(on production and properties of polyoxyalkylene diacrylate-based polymer **electrolyte** for polymer **electrolyte** battery)

IT Battery **electrolytes**

Ionic conductivity

Polyelectrolytes

Pore

Pore size

Swelling, physical

(production and properties of polyoxyalkylene diacrylate-based polymer **electrolyte** for polymer **electrolyte** battery)

IT 14283-07-9, Lithium tetrafluoroborate

RL: MOA (Modifier or additive use); USES (Uses)

(**electrolyte**; production and properties of polyoxyalkylene diacrylate-based polymer **electrolyte** for polymer **electrolyte** battery)

IT 40529-90-6P 57592-67-3P 60651-25-4P 71512-49-7P 80164-51-8P
116321-27-8P 156718-78-4P 262859-71-2P 309252-13-9P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(production and properties of polyoxyalkylene diacrylate-based polymer **electrolyte** for polymer **electrolyte** battery)

IT 64-17-5, Ethanol, uses 75-05-8, Acetonitrile, uses 96-48-0, γ -Butyrolactone 616-38-6, Dimethyl carbonate

RL: NUU (Other use, unclassified); USES (Uses)

(solvent; production and properties of polyoxyalkylene diacrylate-based polymer **electrolyte** for polymer **electrolyte** battery)

IT 262859-71-2P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(production and properties of polyoxyalkylene diacrylate-based polymer **electrolyte** for polymer **electrolyte** battery)

RN 262859-71-2 HCAPLUS

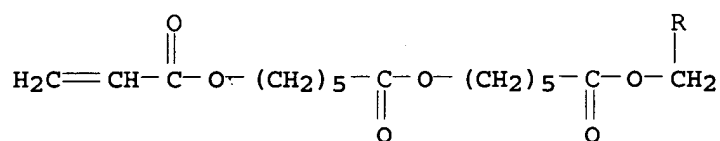
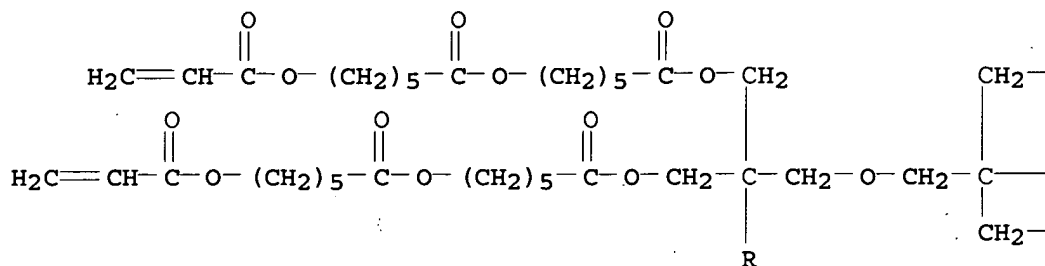
CN Hexanoic acid, 6-[[[1-oxo-6-[[[1-oxo-2-propenyl]oxy]hexyl]oxy]-, oxybis[2,2-bis[[[1-oxo-6-[[[1-oxo-6-[[[1-oxo-2-propenyl]oxy]hexyl]oxy]hexyl]oxy]methyl]-3,1-propanediyl] ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

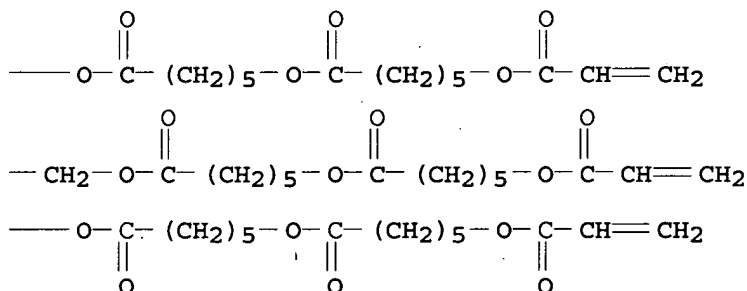
CRN 93294-99-6

CMF C100 H154 O37

PAGE 1-A



PAGE 1-B



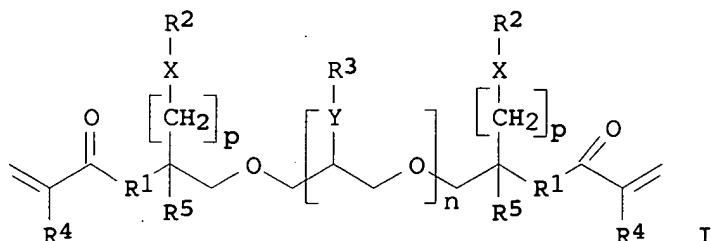
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 16 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:151467 HCAPLUS
DN 132:201118
TI Side-chain-type radical polymerizable compound and liquid crystal device
IN Hayashi, Masanao; Aizawa, Masao
PA Dainippon Ink and Chemicals, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF

DT Patent
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000072717	A	20000307	JP 1998-240929	19980827
PRAI	JP 1998-240929		19980827		
OS	MARPAT 132:201118				
GI					



- AB The compound has a formula I ($R_1 = O, OCH_2, OCH_2CH_2CO_2, OCH_2CH_2CO_2CH_2$; $R_2, 3 =$ aliphatic group, acyclic group, aromatic group; $R_4, 5 = H, Me$; $X, Y =$ ether, ester; $n = 1-4$ integer; $p = 0, 1$). The device has a pair of substrate sandwiching a photochromic layer comprising a liquid crystal material and a transparent polymer substance. The device shows high contrast, light resistance, and improved voltage holding ratio. The device is useful for low-voltage driving.
- IC ICM C07C069-54
ICS G02F001-13
- CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38
- ST liq crystal display device transparent polymer; side chain polymer liq crystal display; radical polymn UV radiation LCD
- IT Polymerization
(radical; side-chain-type radical polymerizable compound for liquid crystal display)
- IT Liquid crystal displays
UV radiation
(side-chain-type radical polymerizable compound for liquid crystal display)
- IT 59913-86-9, Acrylic acid dimer
RL: RCT (Reactant); RACT (Reactant or reagent)
(M 5600; side-chain-type radical polymerizable compound for liquid crystal display)
- IT 260256-92-6P 260256-93-7P 260256-94-8P 260256-95-9P 260256-96-0P
260256-97-1P 260256-98-2P 260256-99-3P 260257-00-9P 260257-01-0P
260257-02-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; side-chain-type radical polymerizable compound for liquid crystal display)
- IT 260257-03-2P 260257-04-3P 260257-05-4P 260257-06-5P 260257-07-6P
260257-08-7P 260257-09-8P 260257-10-1P 260257-11-2P
260257-12-3P 260257-13-4P
RL: DEV (Device component use); IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(side-chain-type radical polymerizable compound for liquid crystal display)
- IT 79-10-7, 2-Propenoic acid, reactions 100-44-7,
reactions 112-52-7, Lauryl chloride 112-76-5, Stearyl chloride
143-07-7, Dodecanoic acid, reactions 538-75-0,
Dicyclohexylcarbodiimide 32844-67-0, Isopalmitic acid 39317-73-2, SR
GLG
RL: RCT (Reactant); RACT (Reactant or reagent)
(side-chain-type radical polymerizable compound for liquid crystal display)

IT 260257-12-3P

RL: DEV (Device component use); IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(side-chain-type radical polymerizable compound for liquid crystal display)

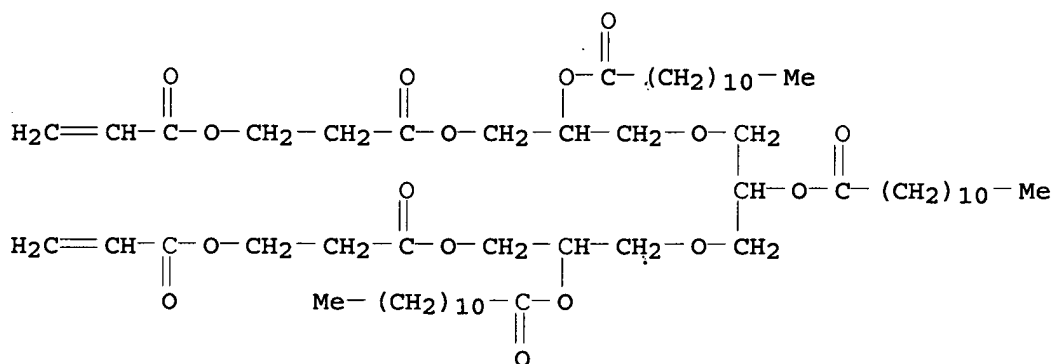
RN 260257-12-3 HCAPLUS

CN Dodecanoic acid, [2-[(1-oxododecyl)oxy]-1,3-propanediyl]bis[oxy[1-[[1-oxo-3-[(1-oxo-2-propenyl)oxy]propoxy]methyl]-2,1-ethanediyl]] ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 260257-01-0

CMF C57 H98 O16



L91 ANSWER 17 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:78487 HCAPLUS

DN 130:175420

TI Radically-polymerizable branched monomer and high-contrast liquid crystal display therewith

IN Hayashi, Masanao; Aisawa, Masao

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11029527	A	19990202	JP 1997-183693	19970709
PRAI	JP 1997-183693		19970709		

AB The monomer is represented by $[\text{H}_2\text{C}:\text{CR}_4\text{CO}_2\text{R}_1\text{CR}_5[(\text{CH}_2)_p\text{YR}_2](\text{CH}_2)_q\text{X}]_n\text{R}_3$ ($\text{R}_1 = \text{CH}_2$, $\text{CH}_2\text{CH}_2\text{CO}_2\text{CH}_2$; R_2 , $\text{R}_3 =$ aliphatic, alicyclic, or aromatic group; R_4 , $\text{R}_5 =$ H,

Me; $\text{X} = \text{CH}_2$, ether or ester linkage; $\text{Y} =$ ether or ester linkage; $n = 2-4$; $p, q = 0, 1$). Also claimed is a liquid crystal display including an optical modulation layer consisting of a liquid crystal material and a transparent macromol. which is prepared from a polymerizable composition containing the monomer.

IC ICM C07C069-54

ICS C07C069-73; C08F020-26; C08F299-02; G02F001-13

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35

ST LCD modulator branched acrylic monomer polymn;
acryloyloxyoctanoyloxypropoxyhexane polymer LCD modulation layer;
threshold voltage low liq crystal display

IT Epoxides
RL: RCT (Reactant); RACT (Reactant or reagent)
(C10-12-alkyl, AOEX 24; in preparation of radically-polymerizable branched
monomer for liquid crystal display with low threshold voltage)

IT Fatty acids, **reactions**
RL: RCT (Reactant); RACT (Reactant or reagent)
(dimer acids; in preparation of **radically**-polymerizable branched
monomer for liquid crystal display with low threshold voltage)

IT Liquid crystal displays
(radically-polymerizable branched monomer for modulation layer in liquid
crystal display with low threshold voltage)

IT 25085-99-8, Epiclon HM 81
RL: RCT (Reactant); RACT (Reactant or reagent)
(Epiclon HM 81; in preparation of radically-polymerizable branched monomer
for liquid crystal display with low threshold voltage)

IT 42765-17-3, Epiol TMP 100
RL: RCT (Reactant); RACT (Reactant or reagent)
(Epiol TMP 100; in preparation of radically-polymerizable branched monomer
for liquid crystal display with low threshold voltage)

IT 79-10-7, 2-Propenoic acid, **reactions** 98-88-4, Benzoyl chloride
98-89-5, Cyclohexanecarboxylic acid 111-20-6, Decanedioic acid,
reactions 111-64-8, n-Octanoyl chloride 112-16-3, Lauroyl
chloride 112-76-5, Stearoyl chloride 1984-77-6, Glycidyl laurate
2426-07-5, 1,2,7,8-Diepoxyoctane 16245-97-9 26283-70-5, Rikaresin HBE
100 33144-09-1, Isostearoyl chloride 47758-37-2 83045-03-8, Kayarad
R 167 117647-40-2, Aronix M 5600 126700-32-1, IPS 22GA 145066-77-9,
3-Nonyldodecanoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(in preparation of **radically**-polymerizable branched monomer for
liquid crystal display with low threshold voltage)

IT 156681-09-3, PN 005
RL: DEV (Device component use); USES (Uses)
(radically-polymerizable branched monomer for modulation layer in liquid
crystal display with low threshold voltage)

IT 220435-41-6P 220435-43-8P 220435-45-0P 220435-47-2P 220435-51-8P
220435-54-1P 220435-57-4P 220435-60-9P 220435-62-1P 220435-64-3P
220435-66-5P 220435-68-7P 220435-69-8P 220435-71-2P
220435-73-4P 220435-75-6P 220435-77-8P 220435-79-0P 220435-80-3P
220435-81-4P 220435-82-5P
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP
(Preparation); USES (Uses)
(radically-polymerizable branched monomer for modulation layer in liquid
crystal display with low threshold voltage)

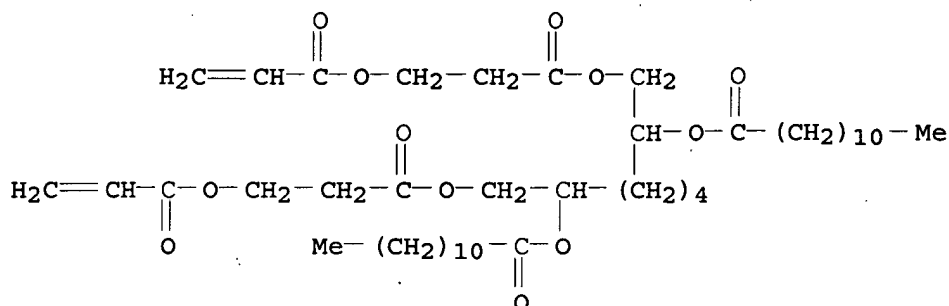
IT 220435-68-7P
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP
(Preparation); USES (Uses)
(radically-polymerizable branched monomer for modulation layer in liquid
crystal display with low threshold voltage)

RN 220435-68-7 HCAPLUS

CN Dodecanoic acid, 1,6-bis[[1-oxo-3-[(1-oxo-2-propenyl)oxy]propoxy]methyl]-
1,6-hexanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 220435-67-6
CMF C44 H74 O12



L91 ANSWER 18 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:535827 HCAPLUS

DN 129:232048

TI Aqueous dispersions of acrylic copolymers for anticorrosive coating materials

IN Nakagawa, Nobuo; Mase, Yumiko; Maeyama, Yoshihiro

PA Nippon Carbide Industries Co., Inc., Japan

S0 Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10218944	A	19980818	JP 1997-41641	19970210
	JP 3522483	B2	20040426		
PRAI	JP 1997-41641		19970210		

AB Title dispersions are prepared by emulsion polymerization of 50-98.5% CH2:CR1CO2R2

(R1 = H, Me; R2 = C1-12 linear or branched alkyl), 0.5-10% carboxyl-containing α,β -ethylenic unsatd. monomers, 1-20% glycidyl-containing α,β -unsatd. monomers, 0-10% monomers having 1 radically polymerizable unsatd. group and ≥ 1 other functional groups, and 0-30% polymerizable other monomers in the presence of anionic **reactive** emulsifiers having **radically** polymerizable unsatd. groups and carboxylate salts as substitutes. Water-thinned coatings obtained from the dispersions have low odor and good adhesion to metal substrates and good resistance to corrosion. Thus, adding an aqueous solution of a carboxylate salt-type reactive emulsifier [Aqualon H 3865 (I)] 4, Me methacrylate 63.4, 2-ethylhexyl acrylate 27.6, acrylic acid 2, glycidyl methacrylate 5, 3-methacryloxypropyltrimethoxysilane 1, and a mixture of mono(hydroxymethyl acrylate) phosphate and di(hydroxymethyl acrylate) phosphate (Phosmer M) 1 part to another aqueous solution of I,

polymerizing of the monomers at 70° in the presence of ammonium persulfate and Na metabisulfite at 70° for 4 h, aging the resulted polymer at 70° for 1.5 h, and neutralizing of the polymer by aqueous NH₃ gave title dispersion. Then, the dispersion was applied on a galvanized steel sheet and dried at 220° for 10 s to give a test piece, which was subjected to salt spraying and left for 480 h to show no corrosion on the surface.

IC ICM C08F220-12

ICS C08F002-24; C08F002-26; C09D133-06; C08F220-12; C08F220-04;
C08F220-32; C08F220-26; C08F230-02; C08F230-08

CC 42-7 (Coatings, Inks, and Related Products)

ST dispersion polymn acrylic reactive emulsifier; water thinned coating
anticorrosive acrylic; methacryloxypropyltrimethoxysilane copolymer
dispersion coating

IT Coating materials
(alkali-resistant; aqueous dispersions of emulsion-polymerized acrylic
polymers
prepared by using reactive emulsifiers for water-thinned coatings)

IT Coating materials
(anticorrosive; aqueous dispersions of emulsion-polymerized acrylic polymers
prepared by using reactive emulsifiers for water-thinned coatings)

IT Polymerization
(emulsion; in manufacture of acrylic emulsion for water-thinned coatings)

IT Galvanized steel
RL: MSC (Miscellaneous)
(plates; aqueous dispersions of emulsion-polymerized acrylic polymers
prepared by
using reactive emulsifiers for water-thinned coatings for)

IT Emulsifying agents
(reactive; for manufacture of acrylic emulsion for water-thinned coatings)

IT Coating materials
(water-resistant; aqueous dispersions of emulsion-polymerized acrylic
polymers
prepared by using reactive emulsifiers for water-thinned coatings)

IT Coating materials
(water-thinned; aqueous dispersions of emulsion-polymerized acrylic polymers
prepared by using reactive emulsifiers for water-thinned coatings)

IT 212891-10-6P, Acrylic acid-Aqualon H 3856-2-ethylhexyl acrylate-glycidyl
methacrylate-3-methacryloxypropyltrimethoxysilane-methyl
methacrylate-Phosmer M graft copolymer ammonium salt 212891-12-8P
212891-14-0P 212891-17-3P, Acrylic acid-Adeka Reasoap SDX
259-2-ethylhexyl acrylate-glycidyl methacrylate-3-
methacryloxypropyltrimethoxysilane-methyl methacrylate-Phosmer M graft
copolymer ammonia salt 212891-19-5P, 2-Acetoacetoxyethyl
methacrylate-acrylic acid-Adeka Reasoap SDX 222A-2-ethylhexyl
acrylate-glycidyl methacrylate-3-methacryloxypropyltrimethoxysilane-methyl
methacrylate-Phosmer M graft copolymer ammonia salt 212891-22-0P
212891-25-3P 212891-27-5P 212891-29-7P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
(aqueous dispersions of emulsion-polymerized acrylic polymers prepared by
using
reactive emulsifiers for water-thinned coatings)

IT 212891-15-1, Glycerol 1-allyl-3-nonylphenyl-2-polyoxyethylene ether
maleate monoester potassium salt
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT
(Reactant or reagent); USES (Uses)
(emulsifiers, Adeka Reasoap SDX 222, Adeka Reasoap SDX 259; aqueous
dispersions of emulsion-polymerized acrylic polymers prepared by using
reactive emulsifiers for water-thinned coatings)

IT 212891-20-8
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT
(Reactant or reagent); USES (Uses)
(emulsifiers, Adeka Reasoap SDX 223, Adeka Reasoap SDX 233A; aqueous
dispersions of emulsion-polymerized acrylic polymers prepared by using
reactive emulsifiers for water-thinned coatings)

IT 212891-23-1, Adeka Reasoap SDX 232A
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT
(Reactant or reagent); USES (Uses)
(emulsifiers, Adeka Reasoap SDX 232A; aqueous dispersions of

emulsion-polymerized acrylic polymers prepared by using reactive emulsifiers for water-thinned coatings)

IT 161588-35-8, Aqualon H 3855B

RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)

(emulsifiers, Aqualon H 3855A, Aqualon H 3855B; aqueous dispersions of emulsion-polymerized acrylic polymers prepared by using reactive emulsifiers for water-thinned coatings)

IT 166889-18-5, Aqualon H 3856

RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)

(emulsifiers, Aqualon H 3856; aqueous dispersions of emulsion-polymerized acrylic polymers prepared by using reactive emulsifiers for water-thinned coatings)

IT 212891-12-8P 212891-25-3P 212891-27-5P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(aqueous dispersions of emulsion-polymerized acrylic polymers prepared by

reactive emulsifiers for water-thinned coatings)

RN 212891-12-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
 α -(carboxymethyl)- ω -[1-[(4-nonylphenoxy)methyl]-2-(2-
propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) sodium salt, 2-ethylhexyl
2-propenoate, α -hydro- ω -[(2-methyl-1-oxo-2-
propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)], α -hydro- ω -[(1-
oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)], oxiranylmethyl
2-methyl-2-propenoate, 2-(phosphonooxy)ethyl 2-methyl-2-propenoate and
3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft, ammonium salt
(9CI) (CA INDEX NAME)

CM 1

CRN 212891-11-7

CMF (C11 H20 O2 . C10 H20 O5 Si . C7 H10 O3 . C6 H11 O6 P . (C6 H10 O2)n
C4 H6 O2 . (C6 H10 O2)n C3 H4 O2 . C5 H8 O2 . (C2 H4 O)n C23 H36 O5 .
Na)x

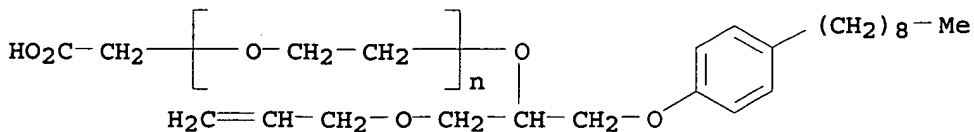
CCI PMS

CM 2

CRN 166889-18-5

$$\text{CMF} \quad (\text{C}_2 \text{ H}_4 \text{ O})_n \text{ C}_{23} \text{ H}_{36} \text{ O}_5 \cdot \text{Na}$$

CCI PMS

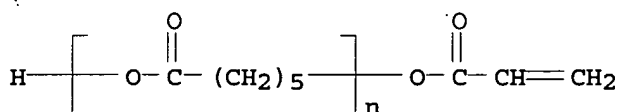


● Na

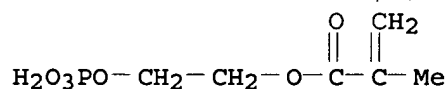
CM 3

$$\text{H}-\left[\text{O}-\overset{\overset{\text{O}}{\parallel}}{\text{C}}-(\text{CH}_2)_5-\right]_n-\left[\text{O}-\overset{\overset{\text{O}}{\parallel}}{\text{C}}-\overset{\overset{\text{CH}_2}{\parallel}}{\text{C}}-\text{Me} \right]$$

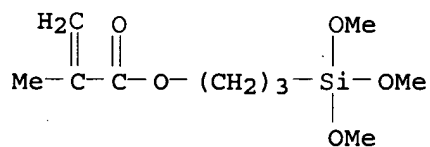
CRN 97387-29-6
CMF (C6 H10 O2)n C3 H4 O2
CCI PMS



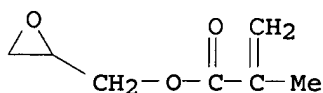
CRN 24599-21-1
CMF C6 H11 O6 P



CRN 2530-85-0
CMF C10 H20 O5 Si



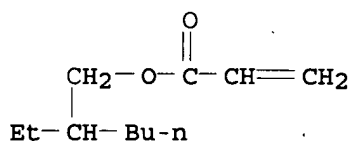
CRN 106-91-2
CMF C7 H10 O3



CM 8

CRN 103-11-7

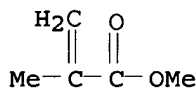
CMF C11 H20 O2



CM 9

CRN 80-62-6

CMF C5 H8 O2



RN 212891-25-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with butyl 2-propenoate, α -(2-carboxyethyl)- ω -[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethoxy]poly[oxy(1,2-ethanediyl)] potassium salt, ethenylbenzene, α -hydro- ω -[(2-methyl-1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)], α -hydro- ω -[(1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)], methyl 2-methyl-2-propenoate, 2-(phosphonoxy)ethyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 212891-24-2

CMF (C10 H20 O5 Si . C8 H8 . C7 H12 O2 . C7 H10 O3 . C6 H11 O6 P . (C6 H10 O2)n C4 H6 O2 . (C6 H10 O2)n C3 H4 O2 . C5 H8 O2 . (C2 H4 O)n C24 H38 O5 . K)x

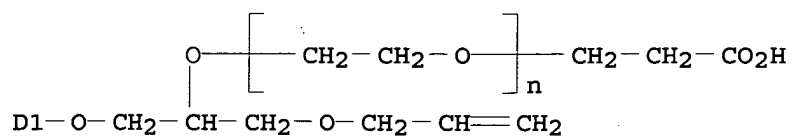
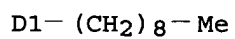
CCI PMS

CM 2

CRN 212891-23-1

CMF (C2 H4 O)n C24 H38 O5 . K

CCI IDS, PMS

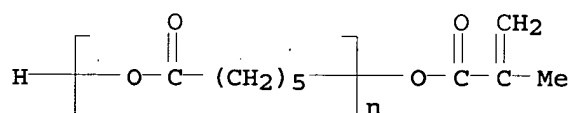


CM 3

CRN 112727-51-2

CMF (C6 H10 O2)n C4 H6 O2

CCI PMS

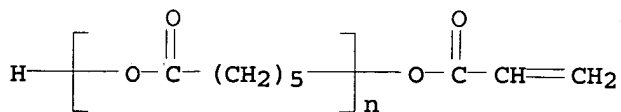


CM 4

CRN 97387-29-6

CMF (C6 H10 O2)n C3 H4 O2

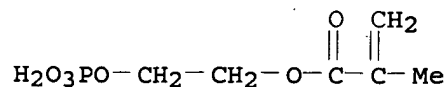
CCI PMS



CM 5

CRN 24599-21-1

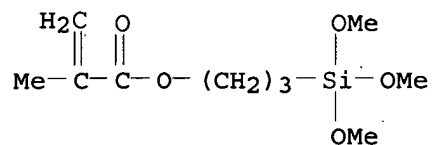
CMF C6 H11 O6 P



CM 6

CRN 2530-85-0

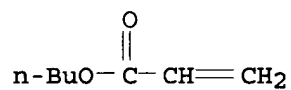
CMF C10 H20 O5 Si



CM 7

CRN 141-32-2

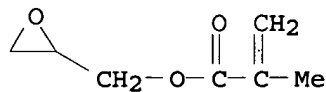
CMF C7 H12 O2



CM 8

CRN 106-91-2

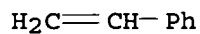
CMF C7 H10 O3



CM 9

CRN 100-42-5

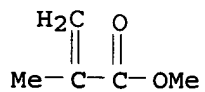
CMF C8 H8



CM 10

CRN 80-62-6

CMF C5 H8 O2



RN 212891-27-5 HCAPLUS

CN Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with butyl 2-propenoate, α -(2-carboxyethyl)- ω -[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) potassium salt, ethenylbenzene, α -hydro- ω -[(2-methyl-1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)], α -hydro- ω -[(1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)], methyl 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate, 2-(phosphonooxy)ethyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 212891-26-4

CMF (C10 H20 O5 Si . C10 H14 O5 . C8 H8 . C7 H12 O2 . C7 H10 O3 . C6 H11 O6 P . (C6 H10 O2)n C4 H6 O2 . (C6 H10 O2)n C3 H4 O2 . C5 H8 O2 . (C2 H4 O)n C24 H38 O5 . K)x

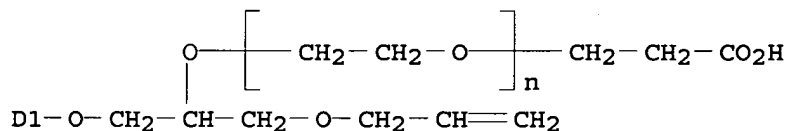
CCI PMS

CM 2

CRN 212891-23-1

CMF (C2 H4 O)n C24 H38 O5 . K

CCI IDS, PMS

D1-(CH₂)₈-Me

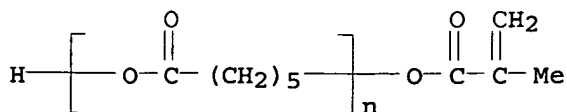
● K

CM 3

CRN 112727-51-2

CMF (C6 H10 O2)n C4 H6 O2

CCI PMS

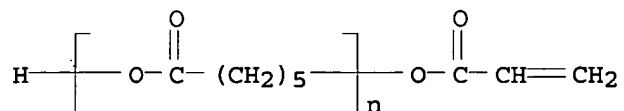


CM 4

CRN 97387-29-6

CMF (C6 H10 O2)n C3 H4 O2

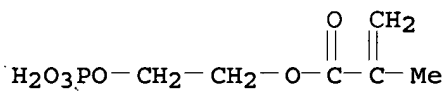
CCI PMS



CM 5

CRN 24599-21-1

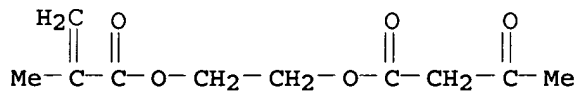
CMF C6 H11 O6 P



CM 6

CRN 21282-97-3

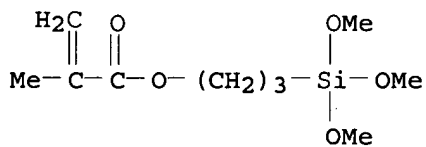
CMF C10 H14 O5



CM 7

CRN 2530-85-0

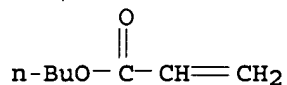
CMF C10 H20 O5 Si



CM 8

CRN 141-32-2

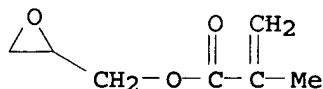
CMF C7 H12 O2



CM 9

CRN 106-91-2

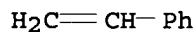
CMF C7 H10 O3



CM 10

CRN 100-42-5

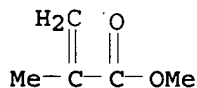
CMF C8 H8



CM 11

CRN 80-62-6

CMF C5 H8 O2



L91 ANSWER 19 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:502650 HCAPLUS

DN 129:224371

TI Ionic conductor and its preparation

IN Okuo, Masaki; Hikuchi, Keiki; Omura, Hiroshi; Suyama, Shuji

PA Nippon Oil and Fats Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10208542	A	19980807	JP 1997-8975	19970121
PRAI	JP 1997-8975		19970121		

AB The conductor comprises (A) a support, (B) a polymer layer containing photopolymn. initiating group, and (C) a ion conducting layer formed from a composition containing (a) ion conducting monomer and (b) soluble electrolyte salt and/or electrolyte salt monomer, which is bonded with B via photopolymn. initiating group. B is formed on A, a

composition containing ion conducting monomer and soluble electrolyte salt is contacted with B with irradiation of active energy to give the title ionic conductor. Ionic conductor layers having excellent peeling resistance and high strength are obtained.

- IC ICM H01B001-12
- ICS C08L051-00; C08F002-46
- CC 76-2 (Electric Phenomena)
- Section cross-reference(s): 35, 38, 72
- ST ionic conductor peeling resistant; photopolymer ionic conductor coating
- IT Polyoxyalkylenes, uses
- Polyoxyalkylenes, uses
- RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (acrylic-polyester-; graft copolymer ionic conductor layer and its preparation)
- IT Polyesters, uses
- Polyesters, uses
- RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (acrylic-polyoxyalkylene-; graft copolymer ionic conductor layer and its preparation)
- IT Polyoxyalkylenes, uses
- RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (acrylic; graft copolymer ionic conductor layer and its preparation)
- IT Coating materials
- (elec. conductive; graft copolymer ionic conductor layer and its preparation)
- IT Conducting polymers
- Ionic conductors
- (graft copolymer ionic conductor layer and its preparation)
- IT Polymers, uses
- RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (graft; graft copolymer ionic conductor layer and its preparation)
- IT Solid electrolytes
- (ionic graft copolymer conductor layer and its preparation)
- IT Polyurethanes, uses
- RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (polyoxyalkylene-, acrylic; graft copolymer ionic conductor layer and its preparation)
- IT 7791-03-9, Lithium perchlorate
- RL: MOA (Modifier or additive use); USES (Uses)
- (4; graft copolymer ionic conductor layer and its preparation)
- IT 13641-97-9DP, Acryloyl isocyanate, reaction products with acryloyl isocyanate, polymer with polyethylene oxides and (meth)acrylates, potassium complex
- RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (MAI; graft copolymer ionic conductor layer and its preparation)
- IT 56-81-5DP, 1,2,3-Propanetriol, reaction product with ethylene glycol and acrylic acid, polymer with polyethylene oxides and (meth)acrylates, uses 79-10-7DP, 2-Propenoic acid, reaction product with ethylene glycol and glycerin, polymer with polyethylene oxides and (meth)acrylates, uses 79-41-4DP, polymer with polyethylene oxides and (meth)acrylates 80-62-6DP, polymer with polyethylene oxides and (meth)acrylates 106-91-2DP, reaction products with partially saponified poly(vinyl acetate), polymer with polyethylene oxides and (meth)acrylates 107-21-1DP, 1,2-Ethanediol, reaction product

with glycerin and acrylic acid, polymer with polyethylene oxides and (meth)acrylates, uses 2680-03-7DP, polymer with polyethylene oxides and (meth)acrylates, potassium complex 3524-68-3DP, Kayarad PET-30, polymer with polyethylene oxides and (meth)acrylates, potassium complex 6900-35-2DP, Potassium methacrylate, polymer with polyethylene oxides and (meth)acrylates, potassium complex 7439-93-2DP, Lithium, complexes with ion-conducting polymers, uses 7440-09-7DP, Potassium, complexes with ion-conducting polymers, uses 7440-50-8DP, Copper, complexes with ion-conducting polymers, uses 14798-03-9DP, Ammonium, complexes with ion-conducting polymers, uses 16325-47-6DP, Ammonium methacrylate, polymer with polyethylene oxides and (meth)acrylates 25805-17-8DP, Polyethyloxazoline, reaction products with acryloyl isocyanate, polymer with polyethylene oxides and (meth)acrylates, potassium complex 25852-47-5DP, polymer with polyethylene oxides and (meth)acrylates, potassium complex 26570-48-9DP, polymer with polyethylene oxides and (meth)acrylates 69488-61-5DP, Poly[(propionylimino)ethylene], reaction products with acryloyl isocyanate, polymer with polyethylene oxides and (meth)acrylates, potassium complex 101027-21-8DP, Gohseran L 302, reaction product with glycidyl methacrylate, polymer with polyethylene oxides and (meth)acrylates 120487-52-7DP, Eleminol RS 30, polymer with polyethylene oxides and (meth)acrylates 203309-79-9DP, 1-[4-[2-[2-(Methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one, polymer with polyethylene oxides and (meth)acrylates 212397-55-2DP, Butyl methacrylate-lauryl methacrylate-1-[4-[2-[2-(methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-methyl methacrylate-polyethylene glycol diacrylate graft copolymer, lithium complex 212397-63-2DP, polymer with polyethylene oxides and (meth)acrylates 212397-64-3P, Cerium methacrylate-1-[4-[2-[2-(methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-methyl methacrylate-polyethylene glycol diacrylate-potassium methacrylate-vinylpyrrolidone graft copolymer 212397-65-4P, 1-[4-[2-[2-(Methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-methyl methacrylate-polypropylene glycol dimethacrylate-Eleminol RS 30 graft copolymer 212397-66-5DP, 1-[4-[2-[2-(Methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-methyl methacrylate-vinylpyridine graft copolymer, lithium complex 212397-67-6DP, 1-[4-[2-[2-(Methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-methyl methacrylate-polyethylene glycol diacrylate-polyethylene glycol dimethacrylate graft copolymer, complex with lithium and potassium 212397-67-6DP, 1-[4-[2-[2-(Methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-methyl methacrylate-polyethylene glycol diacrylate-polyethylene glycol dimethacrylate graft copolymer, potassium complex 212397-68-7DP, 1-[4-[2-[2-(Methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-KBM 503-methyl methacrylate-polyethylene glycol diacrylate-polyethylene glycol dimethacrylate graft copolymer, potassium complex 212397-69-8DP, N,N-Dimethylacrylamide-1-[4-[2-[2-(methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-methyl methacrylate-pentaerythritol triacrylate-polyethylene glycol diacrylate-polyethylene glycol dimethacrylate graft copolymer, potassium complex 212397-70-1DP, 3,3'-Bis(methacryloyloxyethoxycarbonyl)-4,4'-bis(tert-butylperoxycarbonyl)benzophenone-polyethylene glycol diacrylate-Hexakis(methacryloyloxyethoxy)cyclotriphosphazene graft copolymer, lithium complex 212515-88-3DP, Glycidyl methacrylate-1-[4-[2-[2-(methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-methyl methacrylate-polyethylene glycol diacrylate-propylene glycol monomethyl ether-triethylene tetramine graft copolymer, lithium complex 212520-79-1DP, ammonium complex 212520-81-5DP, Hexamethylene diisocyanate polyethylene glycol copolymer diacrylate-1-[4-[2-[2-

(methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-methyl methacrylate-polyethylene glycol diacrylate graft copolymer, copper complex 212571-38-5DP, GE 3A, polymer with polyethylene oxides and (meth)acrylates 212571-90-9DP, Acrylonitrile-GE 3A-1-[4-[2-[2-(methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-methyl methacrylate-polyethylene glycol diacrylate-polyethylene glycol dimethacrylate graft copolymer, potassium complex 212572-38-8P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(graft copolymer ionic conductor layer and its preparation)

IT 1762-95-4 7447-39-4, Copper chloride (CuCl₂), uses 7681-11-0, Potassium iodide (KI), uses 7778-74-7; Potassium perchlorate
 RL: MOA (Modifier or additive use); USES (Uses)

(graft copolymer ionic conductor layer and its preparation)

IT 212397-54-1P, 1-[4-[2-[2-(Methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-methyl methacrylate-polyethylene glycol diacrylate graft copolymer 212397-55-2P, Butyl methacrylate-lauryl methacrylate-1-[4-[2-[2-(methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-methyl methacrylate-polyethylene glycol diacrylate graft copolymer 212397-56-3P, Butyl methacrylate-1-[4-[2-[2-(methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-methyl methacrylate-polyethylene glycol diacrylate graft copolymer 212397-57-4P, Dibutyl fumarate-methyl [2-[4-(2-hydroxy-2-methyl-1-oxopropyl)phenoxy]ethyl] fumarate-polyethylene glycol diacrylate graft copolymer 212397-58-5P, Bis[2-[4-(2-hydroxy-2-methyl-1-oxopropyl)phenoxy]ethyl] itaconate-dibutyl fumarate-polyethylene glycol diacrylate graft copolymer 212397-59-6P, Lauryl methacrylate-1-[4-(2-methacryloyloxy)phenyl]-2,2-dimethoxy-2-phenyl ethan-1-one-methyl methacrylate-polyethylene glycol diacrylate graft copolymer 212397-60-9P, 1,2-Diphenyl-1,2-ethanedione-2-O-acryloyloxime-1-[4-[2-[2-(methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-methyl methacrylate-polyethylene glycol diacrylate graft copolymer 212397-61-0P, Hydroxyethyl methacrylate-methacrylic acid-1-[4-[2-[2-(methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-methyl methacrylate-polyethylene glycol diacrylate graft copolymer 212397-62-1P, Bu methacrylate-N,N-dimethylaminoethyl methacrylate-1-[4-[2-[2-(methacryloyloxy)ethoxycarbonyloxy]ethoxy]phenyl]-2-hydroxy-2-methylpropan-1-one-Me methacrylate-polyethylene glycol diacrylate-ST graft copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(ionic graft copolymer conductor layer and its preparation)

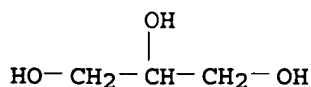
IT 56-81-5DP, 1,2,3-Propanetriol, reaction product with ethylene glycol and acrylic acid, polymer with polyethylene oxides and (meth)acrylates, uses 79-10-7DP, 2-Propenoic acid, reaction product with ethylene glycol and glycerin, polymer with polyethylene oxides and (meth)acrylates, uses 79-41-4DP, polymer with polyethylene oxides and (meth)acrylates

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(graft copolymer ionic conductor layer and its preparation)

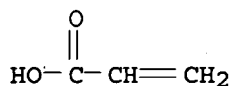
RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



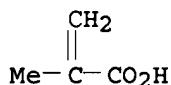
RN 79-10-7 HCAPLUS

CN 2-Propenoic acid (9CI) (CA INDEX NAME)



RN 79-41-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl- (9CI) (CA INDEX NAME)



L91 ANSWER 20 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:293626 HCAPLUS

DN 126:265251

TI Water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance

IN Nakagawa, Nobuo; Maeyama, Yoshihiro; Fujii, Takao; Serizawa, Hiroshi

PA Nippon Carbide Kogyo Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09048945	A	19970218	JP 1996-157380	19960530
	JP 3414589	B2	20030609		
PRAI	JP 1995-155557	A	19950531		

AB The title compns. contain (A) 30-90% acrylic copolymer microparticles obtained by emulsion polymerization of (a) 30-100% CH₂:CR₁CO₂R₂ (R₁ = H, Me;

R2 =

C1-12 alkyl), (b) 0.5-10% α,β-unsatd. carboxylic acids, (c) 1-20% α,β-unsatd. glycidyl monomers, (d) 0-10% comonomers containing ≥1 radical copolymerizable group and other functional group(s), (e) 0-30% other comonomers in the presence of radical polymerizable group-containing reactive emulsifiers and (B) 70-0% polyurethane microparticles and (C) 1-40 phr wax microparticles. A mixture from a solution of 1 part Adeka Reasoap SE-10N (I) in 151.3 parts water, 6.34 parts Me methacrylate, 27.6 parts 2-ethylhexyl acrylate, 2 parts acrylic acid, 5 parts glycidyl methacrylate, 1 parts KBM-503, and 1 part Phosmer M added to a solution of 1 part I in 151.3 parts water at 70° and stirred to obtain a pre-emulsion which was then aged in the presence of ammonium persulfate and Na bisulfite at 70° for 1.5 h, cooled to room temperature, and neutralized with ammonia water, and used together with Meikatex P-4 (montan wax derivative emulsion).

IC ICM C09D133-06

ICS C09D005-00; C09D005-02; C09D175-04; C08F002-24

CC 42-10 (Coatings, Inks, and Related Products)

ST waterborne acrylic polyurethane coating; wax microparticle waterborne acrylic coating

IT Coating materials

- (anticorrosive, alkali-, blocking- and water-resistant; water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT Emulsifying agents
(reactive; water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT Waxes
RL: MOA (Modifier or additive use); USES (Uses)
(water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT Polyurethanes, uses
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT Coating materials
(water-thinned; water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT Polyolefins
RL: MOA (Modifier or additive use); USES (Uses)
(wax; water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT 188741-33-5P 188741-36-8P 188741-37-9P 188741-38-0P
188741-39-1P 188793-57-9P, Adeka Bon-Tighter A 64
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT 188855-85-8, Permarin KUE 4 188855-88-1, MeikateX P 4
RL: MOA (Modifier or additive use); USES (Uses)
(water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT 162535-25-3, Permarin UA 300 175832-28-7, Adeka Bon-Tighter HUX 320
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT 9002-88-4, Chemipearl W-700 9002-88-4D, Polyethylene, oxidized
RL: MOA (Modifier or additive use); USES (Uses)
(wax; water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT 188741-36-8P 188741-39-1P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- RN 188741-36-8 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-ethylhexyl 2-propenoate, α -hydro- ω -[(2-methyl-1-oxo-2-

propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)], oxiranylmethyl
 2-methyl-2-propenoate, 2-(phosphonoxy)ethyl 2-methyl-2-propenoate,
 α -sulfo- ω -[1-[(nonylphenoxy)methyl]-2-(2-
 propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) ammonium salt and
 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, ammonium salt (9CI). (CA
 INDEX NAME)

CM 1

CRN 188741-35-7

CMF (C11 H20 O2 . C10 H20 O5 Si . C7 H10 O3 . C6 H11 O6 P . (C6 H10 O2)n
 C4 H6 O2 . C5 H8 O2 . (C2 H4 O)n C21 H34 O6 S . H3 N)x

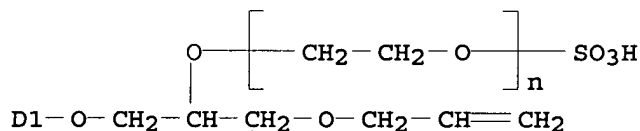
CCI PMS

CM 2

CRN 113405-85-9

CMF (C2 H4 O)n C21 H34 O6 S . H3 N

CCI IDS, PMS

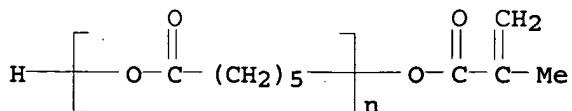
D1-(CH₂)₈-Me

CM 3

CRN 112727-51-2

CMF (C6 H10 O2)n C4 H6 O2

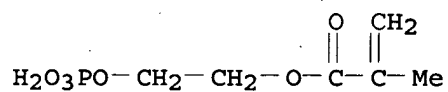
CCI PMS



CM 4

CRN 24599-21-1

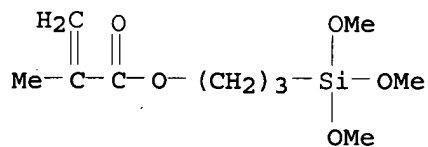
CMF C6 H11 O6 P



CM 5

CRN . 2530-85-0

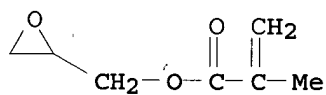
CMF C10 H20 O5 Si



CM 6

CRN 106-91-2

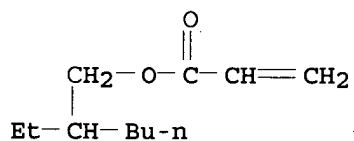
CMF C7 H10 O3



CM 7

CRN 103-11-7

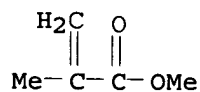
CMF C11 H20 O2



CM 8

CRN 80-62-6

CMF C5 H8 O2



RN 188741-39-1 HCAPLUS

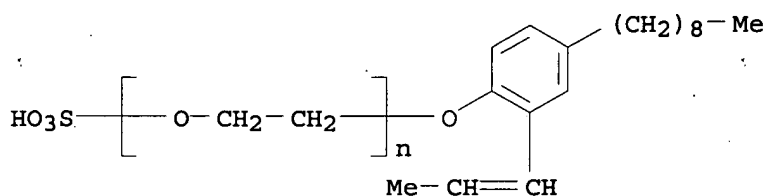
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
 2-propenoate, ethenylbenzene, α -hydro- ω -[(2-methyl-1-oxo-2-
 propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)], α -[1-
 [(nonylphenoxy)methyl]-2-(2-propenyloxy)ethyl]- ω -hydroxypoly(oxy-1,2-
 ethanediyl), oxiranylmethyl 2-methyl-2-propenoate, 2-(phosphonoxy)ethyl
 2-methyl-2-propenoate, α -sulfo- ω -[4-nonyl-2-(1-
 propenyl)phenoxy][poly(oxy-1,2-ethanediyl)] ammonium salt and
 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 140651-97-4

CMF (C2 H4 O)_n C18 H28 O4 S . H3 N

CCI PMS

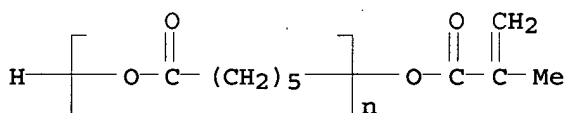
● NH₃

CM 2

CRN 112727-51-2

CMF (C6 H10 O2)_n C4 H6 O2

CCI PMS

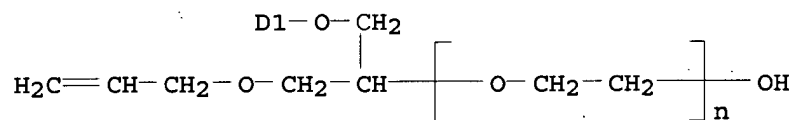
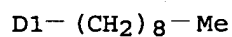


CM 3

CRN 111144-60-6

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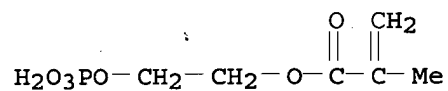
CCI IDS, PMS



CM 4

CRN 24599-21-1

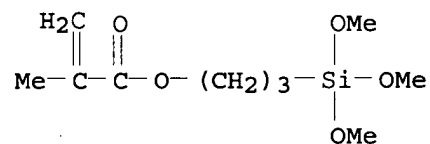
CMF C6 H11 O6 P



CM 5

CRN 2530-85-0

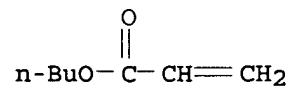
CMF C10 H20 O5 Si



CM 6

CRN 141-32-2

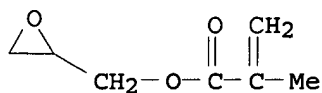
CMF C7 H12 O2



CM 7

CRN 106-91-2

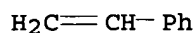
CMF C7 H10 O3



CM 8

CRN 100-42-5

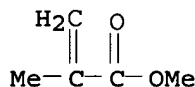
CMF C8 H8



CM 9

CRN 80-62-6

CMF C5 H8 O2



L91 ANSWER 21 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:286165 HCAPLUS

DN 126:265250

TI Water-thinned acrylic copolymer coating compositions. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance

IN Nakagawa, Nobuo; Maeyama, Yoshihiro; Fujii, Takao; Serizawa, Hiroshi

PA Nippon Carbide Kogyo KK, Japan; Nippon Carbide Industries Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09048944	A	19970218	JP 1996-157379	19960530
	JP 3532034	B2	20040531		
PRAI	JP 1995-155557	A	19950531		

AB The title comps. contain (A) 30-90% acrylic copolymer microparticles obtained by emulsion polymerization of (a) 50-98.5% CH₂:CR₁CO₂R₂ (R₁ = H, Me;

R2

= C₁-12 alkyl), (b) 0.5-10% α,β-unsatd. carboxylic acids, (c) 1-20% α,β-unsatd. glycidyl monomers, (d) 0-10% comonomers containing ≥1 radical copolymerizable group and other functional group(s), (e) 0-30% other comonomers in the presence of radical polymerizable group-containing reactive emulsifiers and (B) 70-10% polyurethane microparticles. A mixture from a solution of 1 part Adeka Reasoap SE-10N (I) in 151.3 parts water, 6.34 parts Me methacrylate, 27.6 parts 2-ethylhexyl acrylate, 2 parts acrylic acid, 5 parts glycidyl methacrylate, 1 parts KBM-503, and 1 part Phosmer M added to a a solution of

1 part I in 151.3 parts water at 70° and stirred to obtain a pre-emulsion which was then aged in the presence of ammonium persulfate and Na bisulfite at 70° for 1.5 h, cooled to room temperature, and neutralized with ammonia water, and used together with Adeka Bon-Tighter HUX-320.

- IC ICM C09D133-06
ICS C09D005-00; C09D005-02; C09D175-04
- CC 42-10 (Coatings, Inks, and Related Products)
- ST waterborne acrylic polyurethane coating
- IT Coating materials
(alkali-resistant; water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking, and alkali resistance)
- IT Coating materials
(anticorrosive, alkali-, blocking- and water-resistant; water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT Emulsifying agents
(reactive; water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT Polyurethanes, uses
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT Coating materials
(water-thinned; water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT 188741-33-5P 188741-36-8P 188741-37-9P 188741-38-0P
188741-39-1P 188793-57-9P, Adeka Bon-Tighter A 64
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT 162535-25-3, Permarin UA 300 175832-28-7, Adeka Bon-Tighter HUX 320
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- IT 188741-36-8P 188741-39-1P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, blocking and alkali resistance)
- RN 188741-36-8 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-ethylhexyl 2-propenoate, α -hydro- ω -[(2-methyl-1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)], oxiranylmethyl 2-methyl-2-propenoate, 2-(phosphonooxy)ethyl 2-methyl-2-propenoate, α -sulfo- ω -[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) ammonium salt and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 188741-35-7

CMF (C11 H20 O2 . C10 H20 O5 Si . C7 H10 O3 . C6 H11 O6 P . (C6 H10 O2)n
C4 H6 O2 . C5 H8 O2 . (C2 H4 O)n C21 H34 O6 S . H3 N)x

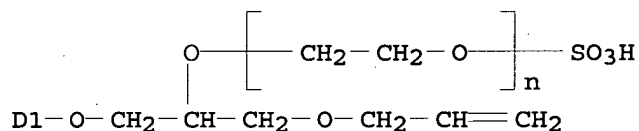
CCI PMS

CM 2

CRN 113405-85-9

CMF (C2 H4 O)n C21 H34 O6 S . H3 N

CCI IDS, PMS

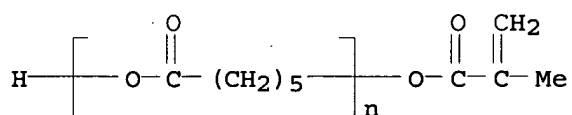
D1- (CH₂)₈-Me

CM 3

CRN 112727-51-2

CMF (C6 H10 O2)n C4 H6 O2

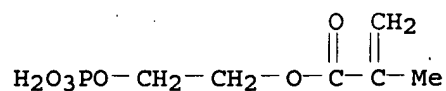
CCI PMS



CM 4

CRN 24599-21-1

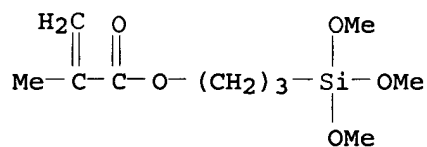
CMF C6 H11 O6 P



CM 5

CRN 2530-85-0

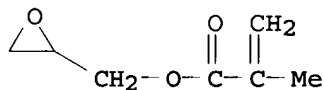
CMF C10 H20 O5 Si



CM 6

CRN 106-91-2

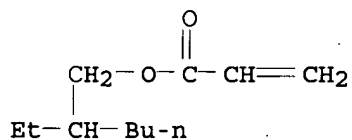
CMF C7 H10 O3



CM 7

CRN 103-11-7

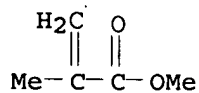
CMF C11 H20 O2



CM 8

CRN 80-62-6

CMF C5 H8 O2



RN 188741-39-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl

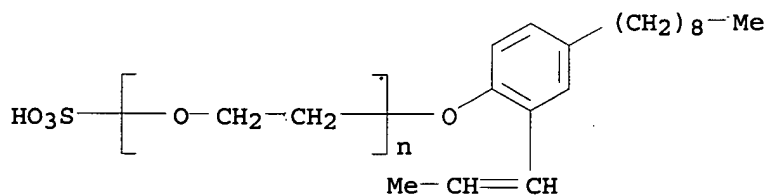
2-propenoate, ethenylbenzene, α -hydro- ω -[(2-methyl-1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)], α -[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethyl]- ω -hydroxypoly(oxy-1,2-ethanediyl), oxiranylmethyl 2-methyl-2-propenoate, 2-(phosphonoxy)ethyl 2-methyl-2-propenoate, α -sulfo- ω -[4-nonyl-2-(1-propenyl)phenoxy][poly(oxy-1,2-ethanediyl)] ammonium salt and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 140651-97-4

CMF (C2 H4 O)_n C18 H28 O4 S . H3 N

CCI PMS

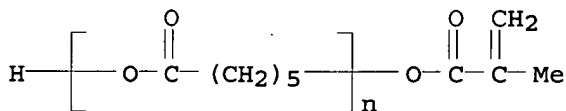


CM 2

CRN 112727-51-2

CMF (C6 H10 O2)_n C4 H6 O2

CCI PMS

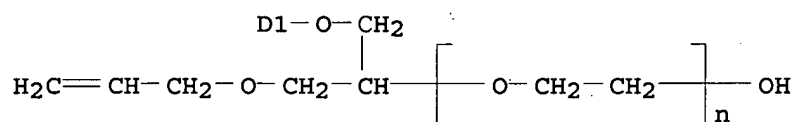
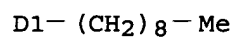


CM 3

CRN 111144-60-6

CMF (C2 H4 O)_n C21 H34 O3

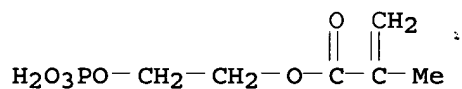
CCI IDS, PMS



CM 4

CRN 24599-21-1

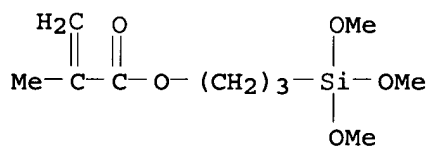
CMF C6 H11 O6 P



CM 5

CRN 2530-85-0

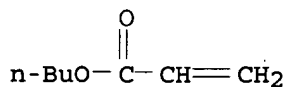
CMF C10 H20 O5 Si



CM 6

CRN 141-32-2

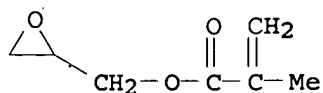
CMF C7 H12 O2



CM 7

CRN 106-91-2

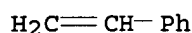
CMF C7 H10 O3



CM 8

CRN 100-42-5

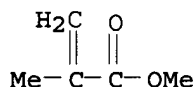
CMF C8 H8



CM 9

CRN 80-62-6

CMF C5 H8 O2



L91 ANSWER 22 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:280851 HCAPLUS

DN 126:265249

TI Water-thinned acrylic copolymer coating compositions with low foaming and odor with excellent coating adhesion and water, corrosion, and alkali resistance

IN Nakagawa, Nobuo; Maeyama, Yoshihiro; Fujii, Takao; Serizawa, Hiroshi

PA Nippon Carbide Kogyo KK, Japan; Nippon Carbide Industries Co., Inc.

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09048943	A	19970218	JP 1996-157378	19960530
	JP 3573573	B2	20041006		
PRAI	JP 1995-155557	A	19950531		

AB The title compns. contain copolymers (average particle diameter ≤ 100 nm in dispersion; $T_g \geq 10^\circ$) obtained by emulsion polymerization of (A) 50-98.5% $\text{CH}_2:\text{CR}_1\text{CO}_2\text{R}_2$ ($\text{R}_1 = \text{H}, \text{Me}$; $\text{R}_2 = \text{C}_1\text{-12 alkyl}$), (B) 0.5-10% α, β -unsatd. carboxylic acids, (C) 1-20% α, β -unsatd. glycidyl monomers, (D) 0-10% comonomers containing ≥ 1 radical copolymerizable group and other functional group(s), (E) 0-30% other comonomers in the presence of radical polymerizable group-containing reactive emulsifiers. A mixture from a solution of 1 part Adeka Reasoap SE-10N (I) in 151.3 parts water, 6.34 parts Me methacrylate, 27.6 parts 2-ethylhexyl acrylate, 2 parts acrylic acid, 5 parts glycidyl methacrylate, 1 parts KBM-503, and 1 part Phosmer M added to a a solution of 1 part I in 151.3 parts water at 70° and stirred to obtain a

pre-emulsion which was then aged in the presence of ammonium persulfate and Na bisulfite at 70° for 1.5 h, cooled to room temperature, and neutralized with ammonia water to obtain a coating composition

IC ICM C09D133-06

ICS C09D005-00; C09D005-02; C09D163-00; C08F002-24; C08G059-20

CC 42-10 (Coatings, Inks, and Related Products)

ST waterborne acrylic coating

IT Coating materials

(anticorrosive, alkali- and water-resistant; water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, and alkali resistance)

IT Emulsifying agents

(reactive; water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, and alkali resistance)

IT Coating materials

(water-thinned; water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, and alkali resistance)

IT 188646-37-9P 188646-39-1P 188741-33-5P 188741-36-8P

188741-37-9P 188741-38-0P 188741-39-1P 188743-23-9P

188743-24-0P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, and alkali resistance)

IT 188741-36-8P 188741-39-1P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(water-thinned acrylic copolymer coating compns. with low foaming and odor with excellent coating adhesion and water, corrosion, and alkali resistance)

RN 188741-36-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-ethylhexyl

2-propenoate, α -hydro- ω -[(2-methyl-1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)], oxiranylmethyl

2-methyl-2-propenoate, 2-(phosphonooxy)ethyl 2-methyl-2-propenoate,

α -sulfo- ω -[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) ammonium salt and

3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 188741-35-7

CMF (C11 H20 O2 . C10 H20 O5 Si . C7 H10 O3 . C6 H11 O6 P . (C6 H10 O2)n C4 H6 O2 . C5 H8 O2 . (C2 H4 O)n C21 H34 O6 S . H3 N)x

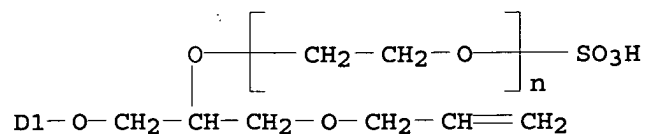
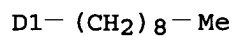
CCI PMS

CM 2

CRN 113405-85-9

CMF (C2 H4 O)n C21 H34 O6 S . H3 N

CCI IDS, PMS

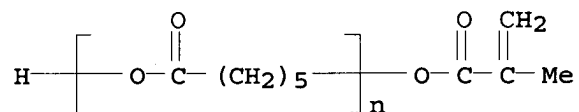


CM 3

CRN: 112727-51-2

CMF (C6 H10 O2)_n C4 H6 O2

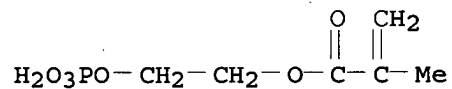
CCI PMS



CM 4

CRN 24599-21-1

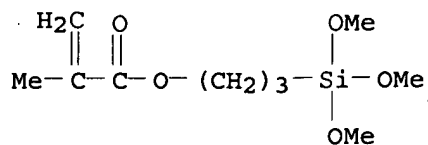
CMF C6 H11 O6 P



CM 5

CRN 2530-85-0

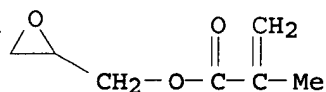
CMF C10 H20 O5 Si



CM 6

CRN 106-91-2

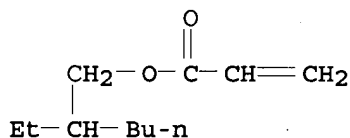
CMF C7 H10 O3



CM 7

CRN 103-11-7

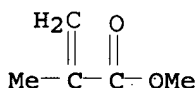
CMF C11 H20 O2



CM 8

CRN 80-62-6

CMF C5 H8 O2



RN 188741-39-1 HCAPLUS

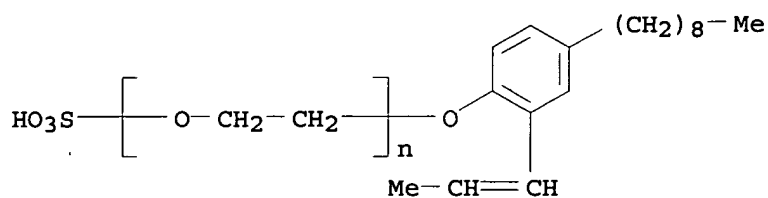
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, ethenylbenzene, α -hydro- ω -[(2-methyl-1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)], α -[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethyl]- ω -hydroxypoly(oxy-1,2-ethanediyl), oxiranylmethyl 2-methyl-2-propenoate, 2-(phosphonoxy)ethyl 2-methyl-2-propenoate, α -sulfo- ω -[4-nonyl-2-(1-propenyl)phenoxy][poly(oxy-1,2-ethanediyl)] ammonium salt and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 140651-97-4

CMF (C2 H4 O)_n C18 H28 O4 S . H3 N

CCI PMS

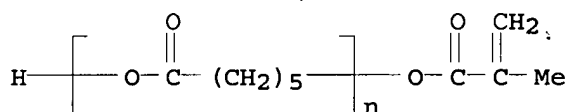
● NH₃

CM 2

CRN 112727-51-2

CMF (C₆ H₁₀ O₂)_n C₄ H₆ O₂

CCI PMS

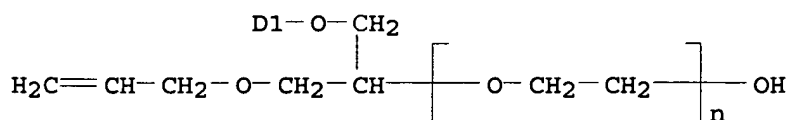


CM 3

CRN 111144-60-6

CMF (C₂ H₄ O)_n C₂₁ H₃₄ O₃

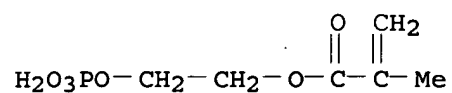
CCI IDS, PMS

D1-(CH₂)₈-Me

CM 4

CRN 24599-21-1

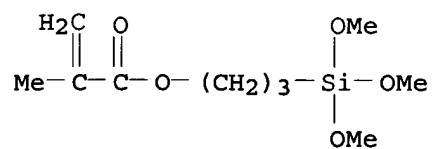
CMF C₆ H₁₁ O₆ P



CM 5

CRN 2530-85-0

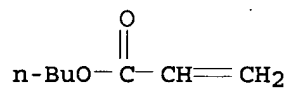
CMF C10 H20 O5 Si



CM 6

CRN 141-32-2

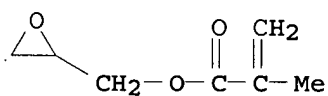
CMF C7 H12 O2



CM 7

CRN 106-91-2

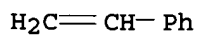
CMF C7 H10 O3



CM 8

CRN 100-42-5

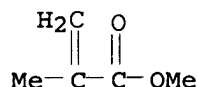
CMF C8 H8



CM 9

CRN 80-62-6

CMF C5 H8 O2



L91 ANSWER 23 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1994:151069 HCAPLUS

DN 120:151069

TI Ionic conductive polymer electrolytes

IN Kono, Michuki; Motogami, Kenji; Mori, Shigeo

PA Dai Ichi Kogyo Seiyaku Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

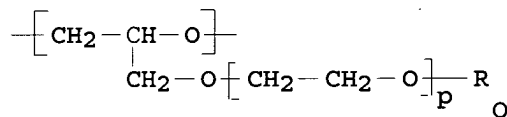
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 05202281	A	19930810	JP 1992-34368	19920124
	JP 3149247	B2	20010326		
	US 6019908	A	20000201	US 1992-998021	19921229
PRAI	JP 1992-34368	A	19920124		
GI					



AB The title **electrolytes** comprise organic polymers described by the general formula $Z[(E)_m(A)_nY]_k$ (I; Z = active H-containing compound residue; Y = active H group, polymerizable reactive functional group; k = 1-12; E = Q; p = 0-25; R = C1-20 alkyl, alkenyl, aryl, alkylaryl; A = CH₂CH₂O; m = 1-220; n = 1-240; m + n ≥ 4; E and A are linked randomly) with average mol. weight 500-50,000 crosslinked either by the reaction of active H-terminated compds. with crosslinkers or by polymerization of functional group-terminated compds., soluble **electrolyte** salts, and ≥ 1 organic solvent selected from THF, 2-methyltetrahydrofuran, 1,3-dioxolane, 4,4-dimethyl-1,3-dioxolane, γ-butyrolactone, ethylene carbonate, sulfolane, 3-methylsulfone (sic), tert-Bu ether, iso-Bu ether, 1,2-dimethoxyethane, 1,2-ethoxymethoxyethane, and ethylene glycol di-Et ether. Thus, 18 g glycerin was treated with a mixture of 730 g diethylene glycol glycidyl Me ether and 182 g ethylene oxide in the presence of KOH to give 876 g polyether with mol. weight 4700, which was esterified with 1.1 equivalent acrylic acid to give acrylate-terminated polyether with mol. weight 4862. A solution containing the polyether 3.6, propylene carbonate 3.6, LiClO₄ 0.4, and 1-hydroxycyclohexyl Ph ketone 0.04 g was cast on a glass plate and UV-irradiated to give a 100 μm-thick polymer **electrolyte** which showed ionic conductivity 9.2 + 10⁻⁴ S/cm at 20°, 5.1 + 10⁻⁴ S/cm at 0°, and 2.5 + 10⁻⁴ S/cm at -20°.

IC ICM C08L071-02

ICS: C08K003-24; C08K005-00; C08K005-17; C08K005-42; H01B001-06

CC 76-2 (Electric Phenomena)

ST ion conductive polymer electrolyte solvent

IT Electrolytes

- (crosslinked polyethers containing organic solvents and, ionic conductors, stable at low temperature)
- IT Solvents
(for ionic conductive polymer electrolytes)
- IT Electric conductors
(ionic, crosslinked polyethers containing electrolytes and organic solvents, stable at low temperature)
- IT 7791-03-9, Lithium perchlorate
RL: USES (Uses)
(crosslinked polyethers containing organic solvents and, for electrolytes, ionic conductive, stable at low temps.)
- IT 14283-07-9, Lithium tetrafluoroborate 33454-82-9,
Trifluoromethanesulfonic acid lithium salt
RL: USES (Uses)
(electrolytes from crosslinked polyethers containing organic solvents and, ionic conductive, stable at low temps.)
- IT 56-81-5DP, Glycerin, reaction products with glycol glycidyl ethers and ethylene oxide, acrylates, polymers 75-21-8DP, Ethylene oxide, reaction products with polyols and glycol glycidyl ethers, acrylates, polymers 79-10-7DP, Acrylic acid, esterification products with hydroxy-terminated polyethers, polymers 107-15-3DP, Ethylenediamine, reaction products with hexaethylene glycol glycidyl Ph ether and ethylene oxide, acrylates, polymers 141-43-5DP, Ethanolamine, reaction products with diethylene glycol glycidyl Ph ether and ethylene oxide, acrylates, polymers 930-37-0DP, Glycidyl methyl ether, reaction products with ethylene glycol and ethylene oxide, acrylates, polymers 14435-47-3DP, reaction products with ethanolamine and ethylene oxide, acrylates, polymers 40349-67-5DP, reaction products with glycerin and ethylene oxide, acrylates, polymers 54140-67-9DP, reaction products with ethylenediamine and ethylene oxide, acrylates, polymers 71712-93-1DP, Diethylene glycol glycidyl methyl ether, reaction products with glycerin and ethylene oxide, acrylates, polymers
RL: PREP (Preparation)
(preparation of, crosslinked, for electrolytes, containing lithium perchlorate and organic solvents, ionic conductive, stable at low temps.)
- IT 50-70-4DP, Sorbitol, reaction products with triethylene glycol glycidyl Me ether and ethylene oxide, polymers with TDI
RL: PREP (Preparation)
(preparation of, crosslinked, for electrolytes, containing lithium tetrafluoroborate and organic solvents, ionic conductive, stable at low temperature)
- IT 75-21-8DP, Ethylene oxide, reaction products with polyols and glycol glycidyl Me ethers, polymers with TDI 26471-62-5DP, Toluene diisocyanate, polymers with hydroxy-terminated polyethers 73692-54-3DP, Triethylene glycol glycidyl methyl ether, reaction products with sorbitol and ethylene oxide, polymers with TDI
RL: PREP (Preparation)
(preparation of, crosslinked, for electrolytes, containing lithium tetrafluoroborate and organic solvents, ionic conductive, stable at low temps.)
- IT 80-05-7DP, Bisphenol A, reaction products with polyoxyethylene glycidyl Me ether and ethylene oxide, p-vinylbenzoates, polymers 107-21-1DP, Ethylene glycol, reaction products with triethylene glycol Bu glycidyl ether and ethylene oxide, p-vinylbenzoates, polymers 822-06-0DP, Hexamethylene diisocyanate, polymers with hydroxy-terminated polyethers 1075-49-6DP, p-Vinylbenzoic acid, esterification products with hydroxy-terminated polyethers, polymers 4067-16-7DP, Pentaethylenhexamine, reaction products with triethylene glycol glycidyl methyl ether and ethylene oxide, polymers with HDI 40349-67-5DP, Polyoxyethylene glycidyl methyl ether, reaction products with bisphenol A

and ethylene oxide, p-vinylbenzoates, polymers 87257-02-1DP, reaction products with ethylene glycol and ethylene oxide, p-vinylbenzoates, polymers

RL: PREP (Preparation)

(preparation of, crosslinked, for electrolytes, containing lithium trifluoromethanesulfonate and organic solvents, ionic conductive, stable at low temps.)

IT 96-47-9, 2-Methyltetrahydrofuran 96-48-0, γ -Butyrolactone
96-49-1, Ethylene carbonate 108-32-7, Propylene carbonate 109-99-9,
Tetrahydrofuran, uses 110-71-4 126-33-0, Sulfolane 534-15-6,
1,1-Dimethoxyethane 628-55-7, Isobutyl ether 629-14-1, Ethylene glycol
diethyl ether 646-06-0, 1,3-Dioxolane 4437-85-8, Butylene carbonate
5137-45-1, 1,2-Ethoxymethoxyethane 6163-66-2, tert-Butyl ether
13372-33-3, 4,4-Dimethyl-1,3-dioxolane

RL: USES (Uses)

(solvent, for ionic conductive polymer electrolytes)

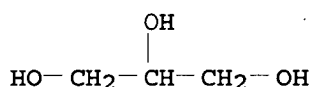
IT 56-81-5DP, Glycerin, reaction products with glycol glycidyl ethers and ethylene oxide, acrylates, polymers 79-10-7DP, Acrylic acid, esterification products with hydroxy-terminated polyethers, polymers

RL: PREP (Preparation)

(preparation of, crosslinked, for electrolytes, containing lithium perchlorate and organic solvents, ionic conductive, stable at low temps.)

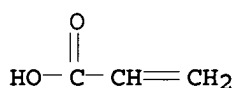
RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



RN 79-10-7 HCAPLUS

CN 2-Propenoic acid (9CI) (CA INDEX NAME)



L91 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1990:38132 HCAPLUS

DN 112:38132

TI UV curing of acrylate monomers activated with resol resin

AU Yoshioka, Naoki; Nurhajati, D. W.; Nishide, Hiroyuki; Tsuchida, Eishun; Kasai, Masanori

CS Waseda Univ., Tokyo, 169, Japan

SO Journal of Photopolymer Science and Technology (1989), 2(2), 231-6

CODEN: JSTEEW; ISSN: 0914-9244

DT Journal

LA English

AB The curing behavior of acrylates in the presence of PhOH-HCHO resol (I) was studied in connection with coating compns. and the synergistic effect of alkaline additives. A thin layer (thickness .apprx.3 μm) was prepared from a mixture of I, [(CH₂:CHCO₂C₅H₁₀CO₂CH₂)₃CCH₂]₂O (II), and CH₂:CHCO(OC₂H₄)₂OEt with/without an alkali, and irradiated with a metal halide UV lamp (120 W/cm, irradiation energy 420 mJ/cm²). The curing was accelerated with addition of alkalis. With a constant consumption (.apprx.60%) of the acrylate double bonds, the yields of the cured polymer increased

with increasing contents of I and II, indicating that I acted as a crosslinking agent. Ba(OH)₂ was more effective than NaOH and KOH. A synergistic effect was observed with addition of 0.1 mol% Ba(OH)₂ to the OH groups of I. An ESR signal at g = 2.004 was detected upon the irradiation, indicating the formation of reactive phenoxy radicals in I.

CC 42-3 (Coatings, Inks, and Related Products)

ST acrylic phenolic coating photocuring

IT Coating materials

(UV-curable, acrylate-phenolic compns., metal hydroxide catalysts for curing of)

IT Crosslinking catalysts

Polymerization catalysts

(photochem., metal hydroxides, for UV-curable phenolic-acrylate coating compns.)

IT 1310-58-3, Potassium hydroxide, uses and miscellaneous 1310-73-2, Sodium hydroxide, uses and miscellaneous 17194-00-2, Barium hydroxide

RL: CAT (Catalyst use); USES (Uses)

(catalysts, for UV curing of acrylate-phenolic coating compns.)

IT 124565-18-0

RL: TEM (Technical or engineered material use); USES (Uses)

(coatings, UV curing of, metal hydroxide effect on)

IT 124565-18-0

RL: TEM (Technical or engineered material use); USES (Uses)

(coatings, UV curing of, metal hydroxide effect on)

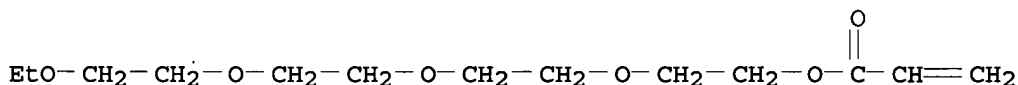
RN 124565-18-0 HCAPLUS

CN Hexanoic acid, 6-[(1-oxo-2-propenyl)oxy]-, 2-ethyl-2-[[[1-oxo-6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]methyl]-1,3-propanediyl ester, polymer with formaldehyde, phenol and 3,6,9,12-tetraoxatetradec-1-yl 2-propenoate (9CI)
(CA INDEX NAME)

CM 1

CRN 124565-17-9

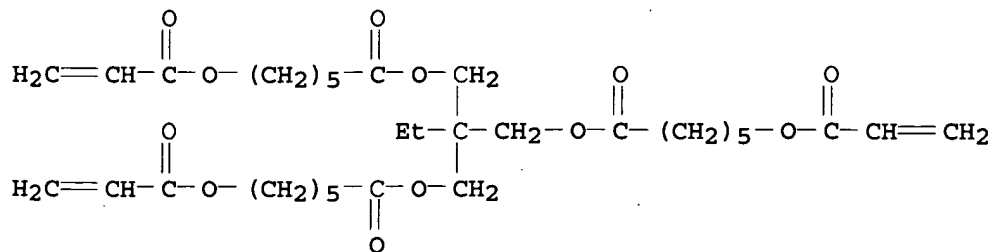
CMF C13 H24 O6



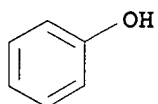
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CRN 91381-56-5

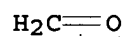
CMF C33 H50 O12



CM 3

CRN 108-95-2
CMF C6 H6 O

CM 4

CRN 50-00-0
CMF C H2 O

=>